Clinical Lecture
ON
INFLUENZA AND ITS COMPLICATIONS.

Delivered to the Students of the Charing-cross Hospital Medical School on Tuesday, May 19th, 1891.

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GENTLEMEN,—It is hardly necessary to offer you an apology for delivering a clinical lecture on the subject of Influenza and its Complications. In the first place, as you know, influenza was until last year what may be called a disease of history, and few of us who are now engaged in treating patients had seen the disease before. It was a disease of which we had heard, and which had been described in various treatises and in the text-books, but of which we had had no personal experience. Then last year, in the months of January and February, we had a visitation of influenza, for the first time for nearly half a century. Although of brief duration, the epidemic was characterised by its severity, and by the remarkable extensiveness of its distribution, for it swept over half the population. Then almost as suddenly it disappeared. For a few months afterwards we were only reminded of what we had passed through by the number of sequelæ, which, during the whole of last summer, were constantly met with, in the shape of debility, neuralgia, pulmonary diseases, cardiac weakness and the like. A few months ago the rumour arose that the disease had made its appearance once more on the Continent of Europe, and later in the north of England. I confess that I, for one, was rather sceptical about the truth of this report, because a great many troubles which were not influenza at all had last year been catalogued as influenza. Unhappily, there can no longer be any doubt that within the last fortnight or three weeks influenza has made its appearance again amongst us, and many cases of it may be seen daily in the casualty and out-patient departments, and some of its complications in the ward where we are now assembled. You have thus an opportunity of studying a disease which is fortunately a rare visitor; I had almost called it a privilege, for it is just possible that it may now leave us, and may not be seen again for another generation. Influenza belongs to a different category from most of the diseases which we have to treat here every day, and with which you become more or less familiar, for it comes at long intervals and disappears practically between them. But there is another good cause which can be shown for the choice of the subject of to-day's clinical lecture. Though not of itself particularly dangerous, influenza is attended with very serious complications and followed by sequelæ of a peculiarly low type, and it is of the utmost importance that you should make yourselves familiar with a disease which is at once so widely spread and may lead to so many unhappy results.

Now let me proceed to tell you something about this remarkable disease, without pretension to completeness of description or anything approaching details. First, I will give a very brief general sketch of an ordinary uncomplicated case of influenza. Secondly, I will refer more particularly to a few of its most prominent symptoms, and dwell a little upon these. Thirdly, I will deal with some of the most important complications of the disease—namely, bronchitis, pneumonia, broncho-pneumonia, and certain cardiac, gastro-intestinal, and nervous troubles.

First, then, a very striking feature of influenza is that the patient is one of many sufferers: that other people in the same house and in the same neighbourhood and country are affected. The disease is epidemic in its distribution. The invasion is generally quite definite; it may be sudden and swift, coming on in the street or without previous warning otherwise. A few days ago I saw a lady with influenza whose husband received a telegram of her being urgently ill only a few hours after he had left her in her usual health. The patient's first complaint is of a sense of chilliness or "cold water down the back," with a feeling of illness and nausea, perhaps sickness. Very shortly pains make their appearance, and they rapidly increase in severity. The pains of influenza are mainly of two kinds as far as the patient's complaints go: first, headache; and second, pains about the limbs and trunk. The headache is characteristic from its severity, seat, and persistence. It is, indeed, no ordinary headache, and I cannot help thinking that it is even more severe in the present epidemic than it was last year. So violent and so persistent is it, that patients will tell you that they have not been able to sleep for two whole days and nights, in spite of all the different remedies which had been used to relieve it. It is in one or both of the frontal regions, and the eyeballs also ache (one or both), sometimes intensely. The pains in the limbs are also characterised by their severity, by their breakbone character, and in some cases by that distressing inability to keep the aching limbs at rest in bed, which we all know by experience after a day's over-exertion. By this time the patient is, or ought to be, in bed, and when we visit him we find, besides these symptoms, all the ordinary phenomena of fever. He is obviously ill, though not urgently so, and, in addition to the pains, complains of a sense of extreme poorliness or prostration. The pulse counts 92–120, and is large and soft. The temperature has risen to 102°, 103°, or even 104°. The skin is dry, but will presently become profusely moist. There is a white or whitish-brown coat on the tongue, with anorexia, thirst, considerable nausea, perhaps vomiting and looseness of the bowels or constipation, and the urine is scanty, high-coloured, perhaps retained. Various eruptions may appear on the skin—erythema, sudamina, miliaria,—which, if they happen to be associated with sore throat, as is sometimes the case, may suggest the diagnosis of scarlet fever. Heaviness, apathy, and somnolence, associated with the sense of chilliness and prostration, are frequently observed, out of proportion to the severity of the pyrexia. The patient complains not so much of debility as of a sense of coldness; he lies on a couch in a state of helplessness and apathy, from which he cannot be roused. But I would repeat that in the present epidemic, as far as my experience goes, the pains in many instances overshadow by their severity most of the other symptoms of the uncomplicated disease.

Prominent also amongst the symptoms of influenza in many of our present cases are disturbances of the respiratory system. Cough is very common, of a very remarkable kind, being sudden, paroxysmal, violent, irrepressible, and harsh, attended with soreness in the chest, and ending in expectoration, with exhaustion. The sputa vary in quantity with the degree of involvement of the respiratory tissues. They may be absent or they may be profuse, yellow or grey, and muco-purulent when the catarrh of nose or lower passages is severe. Here let me warn you not to commit the mistake of expecting to meet with coryza in every case of influenza. Many persons will not acknowledge influenza because the nose has never run. They say there is always a cold in the head in influenza. This is an excellent instance of the growth of a popular error. When a nasal catarrh is severe it is accompanied by fever and pains in the head and limbs, and is then said to be a "feverish" or an "influenzal cold." "Influenzal cold" is easily corrupted into "influenza"; influenza itself has probably been never seen; and thus coryza has come to be put down as the essential feature or element of the epidemic disease, instead of the fever, the prostration, and the pains. I have dwelt on this point, insignificant though it may appear, in order to caution you against committing an error in diagnosis. Coryza, however, occasionally does make its appearance, especially in cases where rest and warmth have been neglected. If a man despise his attack of influenza, and walk about for two or three days, he is not only extremely likely to get a certain amount of "cold in the head," but he may be thankful if he does not have bronchitis or pneumonia set up as a consequence of his rashness. These are the most important features of an ordinary attack of influenza. The time at our disposal does not permit me even to mention many interesting varieties of the disease, which you will find fully described in special treatises.

The course pursued by uncomplicated influenza is measured by a few days. For the first two days the pains, fever, and sense of illness and prostration are severe. By the third day the worst is over: the temperature is much lower, perhaps normal, rising a little in the evening; the skin is sweating profusely; the pains are mostly subdued, and already the appetite is returning. In four or five days the patient is apyrexic. A sense of more or less debility remains for a time—possibly for weeks or months. In other instances

the course is modified. First, variability may be the most striking feature, the patient almost suddenly feeling very ill and much better alternately. Or the duration may be greater, the temperature continuing high for a week on end, and the pains persisting or returning. Such cases are peculiarly disturbing to the practitioner, as they suggest some obscure complication, but happily they may mean nothing more serious than a relapse, or, more properly, a recrudescence of the primary disease.

And now let me dwell for a moment on one or two of the special symptoms of influenza, and on its diagnosis. The most striking features of the complaint are the violent headache and pains in the limbs, the pyrexia, the remarkable sense of prostration, the degree of debility which accompanies it, and may follow it, and the tendency to serious complications. Of the pains I have already said enough for our present purpose. I must refer, however, at more length to the feeling of prostration, which is so generally complained of, so prominent, and out of proportion to the degree of the fever. A few days ago I saw two cases in which the patients were convinced that death was imminent, the subjective "lowness" was so extreme, they said, that existence could not possibly continue, and yet in neither case was there actual danger, though both of them were sharply ill. Accompanying this symptom (which, you understand, is simply a symptom of influenza, as eruption and sore-throat are symptoms of scarlet fever) there is no doubt in many cases actual debility, objectively expressed by the state of the pulse, by a tendency to giddiness or faintness when the patient is raised for examination, or at particular hours of the night, and by extreme muscular weakness; and after the acute stage has passed and convalescence set in, there may be left for a considerable time, as I have already mentioned to you, neuralgia, faintness on movement, liability to "colds," unfitness or incapacity for work, and generally "poor health."

The *type of temperature* is somewhat difficult to describe, because its duration is so brief. Within forty-eight to seventy-two hours the temperature has risen far above the normal, and very likely returned to it. I show you here the temperature charts of some cases at present in the wards. You will observe the sharp steeple-like elevation of the first two days, the slight evening exacerbation on the third day, and the gradual fall to the normal. It is very different with protracted cases, to which I have already referred, and in the complications which we shall presently study.

The *diagnosis* of influenza is not difficult, yet it must very often be confounded with other diseases. First, at the beginning of an epidemic many cases are called by other names; and, secondly, when the epidemic is established, and the practitioner overwhelmed with work, he sees nothing else in his patients—all the cases of rheumatism, bronchitis, and incipient phthisis which he meets with are for the time called "influenza." The aches of influenza suggest rheumatism, but they are more severe than the premonitory or general pains of acute rheumatism, and too widely distributed and apart from the articulations to be confounded with that disease after the pains have "settled" in definite joints. It is well for you to know, however, that the salicyl compounds appear to relieve both; that the two diseases have this further peculiarity in common, that they attack more readily their previous victims; and that true rheumatism may follow close upon influenza, as in an instance lately under my own observation. In tropical and subtropical countries influenza has also to be diagnosed from dengue.

We now come to the most important complications of this disease. First, I will mention, as one of the most serious, *acute bronchitis*. This is a common complication of influenza in the present epidemic—more common, I believe, than in 1890. I have myself seen a good many fully developed cases of the kind within the last week. Bronchitis makes its appearance any time in the course of influenza: it may be an early symptom; it may be so late as to be called a sequela, or at any rate to be attended with a recrudescence rather than a relapse of the fever. Both its symptoms and its signs are thoroughly developed. The respirations rise to 40, or even 48; along with this there may be more or less objective dyspnœa, until in the very worst cases the patient sits up gasping for breath, and finally may perish of asphyxia. The pulse mounts to 100 or more; the temperature by no means uncommonly to 104°, at which height it may remain for days. Cough is urgent, being almost continual, spasmodic, harsh, noisy, and painful. Patients will tell you that they "never stop coughing the whole night." The sputa are of different degrees of abundance, of a glairy, tenacious consistence, greyish-white or yellowish in colour, raised with some difficulty, and sometimes in peculiar discrete lumps or pieces. The skin may be very moist, but not necessarily so for some days at first. With these symptoms of bronchitis you will observe that there coexists the characteristic prostration of influenza.

The physical signs are much as usual, including drummy percussion-resonance, rhoncoid or harsh but weak respiratory murmur, scattered sonorous and sibilant rhonchi, and abundance of râles—mucous or even subcrepitant râles—over the bases of the lungs. Occasionally bronchitis drifts into broncho-pneumonia, patches of consolidation developing over the lower lobes posteriorly, with crisp râles, bronchial breathing, and bronchophony. These cases of influenzal bronchitis are often very serious. Some of them may pass off lightly, but there can be little doubt that the mortality from influenza, of which you read almost daily in the newspapers amongst our public men, is to be put down not altogether to pneumonia, but in some instances to bronchitis. The chief danger in connexion with it is either that it drifts on to the capillary form, which I have mentioned as leading to asphyxia and death; or, on the other hand, into the broncho-pneumonia which I am about to describe.

Pneumonia, the second complication of influenza, is one which was particularly abundant in the last epidemic, and is also very prevalent in the present one. As far as my experience goes there are three fairly differentiated types or varieties of pulmonary inflammation to be found in connexion with influenza. The first type is a well-developed ordinary acute croupous pneumonia; the second is a very curious ill-developed pneumonia, popularly called "congestion," which is apparently croupous pneumonia in the stage of engorgement, where the exudation never becomes completely solid, but maintains a more or less fluid or semifluid character; and the third is that broncho-pneumonia of which I have just said something in connexion with bronchitis.

Ordinary acute croupous pneumonia comes on, first, either at the beginning or in the course of an ordinary attack of influenza. The patient may perhaps be beginning to improve—say, on the fourth day,—when his temperature rises, and other symptoms and signs make their appearance, which tell us that we are face to face with one of the very worst forms of influenza—pain in the side; short, rapid respirations, with movement of the alæ nasi, and characteristic disturbance of the pulse-respiration ratio, a painful short cough, and rusty sputa. When we examine the lungs we discover that the patient has the first signs of an ordinary attack of acute pneumonia. In other instances the patient may not have been known to have influenza at all. He sends for us on account of a pain in the side, and we find that he has got acute pneumonia; but so universal is the distribution of the two diseases just now, and so closely and quickly do cases of the one and of the other occur in the same house or neighbourhood, that we are justified in concluding that, although there were no evidences of influenza in the particular individual before the acute pneumonia, still it is essentially a case of this kind. Here, then, is a patient, such as the young woman in this bed, down with an attack of somewhat asthenic croupous pneumonia. The disease passes through the ordinary phases, which I need not describe. Of the symptoms, some perhaps are less marked: the sputa, for instance, may not be definitely red; the course of the disease is possibly less definite; and the crisis may not be so sharp, the temperature falling more slowly. In other instances you will find that the patient is passing through the acute pneumonia pretty well, losing strength of course, and becoming utterly prostrate (for you must remember that along with this complication the prostration of the influenza itself is present), when a fresh portion of the lung or the other lung is attacked; and just at the time you think all is going well, he is plunged into a further attack, and perishes of double pneumonia on the second or third day from the fresh invasion.

The second or "congestive" type of influenzal pneumonia is comparatively common, if I may judge by my experience both last year and at the present time. The patient has dyspnœa, pain in the side, cough, and expectoration; and on physical examination we find in the way of physical signs a certain amount of dulness, but not the characteristic sniffling or tubular blowing breathing

of true croupous pneumonia. Instead of these, we find that the dull area is "silent." We hear nothing, and for a moment we think that the patient has pleurisy. If we listen more carefully we detect very feeble crepitations; and after a time in the progress of the case these become more distinct, until they pass into the larger or "mucous" râles, very much as in the stage of resolution of ordinary broncho-pneumonia. Therewith, the clinical picture of acute pneumonia is less perfectly developed as regards respiration, cough, expectoration, local pain, herpes, pulse, temperature, and dryness of the skin. Last year a very striking feature in the epidemic was the frequency of delirium in the course of this type of pneumonia, out of proportion to the other symptoms, and yet by no means of evil significance prognostically.

The third type of pulmonary inflammation complicating influenza is *broncho-pneumonia*. The patient is the subject of acute bronchitis, and his case may or may not be causing you some anxiety, when one day you find that the temperature has risen, and discover dulness at the base of the chest; that the râles have become more crisp; and that you get blowing breathing and other signs which suggest to you that on the acute bronchitis there has supervened some local collapse which is drifting into broncho-pneumonia. This is a point which you should clearly impress upon your minds. Broncho-pneumonia is an exceedingly rare disease in the adult; so rare that some of our best authorities decline to allow that the disease is ever seen post mortem except in children. At the present time, in connexion with influenza, there is no question whatsoever of its existence.

In four cases of the kind which I have lately seen, whilst the general features of the illness were those of acute bronchitis supervening on influenza, and the physical signs have been such as I have just mentioned, the pulse-respiration ratios have been

$$\frac{88}{32}\left(\frac{2{\cdot}75}{1}\right),\ \frac{150}{54}\left(\frac{2{\cdot}7}{1}\right),\ \frac{128}{48}\left(\frac{2{\cdot}6}{1}\right),\ \text{and}\ \frac{112}{48}\left(\frac{2{\cdot}3}{1}\right)$$

respectively—manifestly a pneumonic ratio. Therewith the temperature rose to 104°, after having declined somewhat, or after being moderate in degree, along with simple bronchitic symptoms. Both the clinical and post-mortem records which have been left of previous epidemics are in accordance with these observations.

Between these three varieties of influenzal pneumonia it is sometimes difficult or impossible to draw a line. Even the well-developed variety may present mainly large moist sounds, as if the exudation never became truly solid; and, on the other hand, if the "congestive" variety be double, with a good deal of scattered crepitus elsewhere in the lungs, suggestive of pulmonary catarrh, as is frequently the case, it may be impossible to diagnose it from a broncho-pneumonia.

Amongst the subjects of acute bronchitis and pneumonia in influenza a certain number have already been suffering from chronic lung disease—from phthisis or chronic bronchitis. There are many very interesting and curious points about these cases, but they are perhaps too special for the present occasion. Some of these patients present severe symptoms, and rapid extension of the old lesions may be especially threatening; but it is wonderful how safely they may pass through the attack, particularly when promptly and carefully treated—as, for instance, in the Brompton Hospital, where influenza was rife last year and is to be found at present, without the patients suffering much.

Although *pleurisy* is not generally recognised as a complication or sequela of influenza, I must not omit to tell you that I was greatly struck by the number of cases of empyema which presented themselves for treatment last summer—some of them peculiarly severe, foul, and quickly perforating inwardly.

I have but a few minutes left to speak of the *cardiac* complications. In the first place, in influenza itself and its associated complications we note that tendency to faintness and prostration which is—partly at least—cardiac. This may occur at the very invasion, or at any period in the course of or after the illness. If the patient sits up he becomes giddy and faint, and feels that he must lie down at once. Other cases perish from asthenia simply, apparently from failure of the heart; or it is only by careful attention on the part of the nurse that they are rescued from death. The second cardiac complication is one which I have not found referred to in the course of my reading, and which I mention therefore with some reserve. As a matter of fact I have seen three cases of acute pericarditis within the last fortnight in association with acute pneumonia, and I may add that two of the three proved fatal. Now, this acute pneumonia may or may not have been influenzal, but the cases occurred in the midst of those of influenza, and certainly they were neither rheumatic nor renal in association, so that the pericarditis is very difficult to account for unless it were pericarditis of the same origin as the acute pneumonia—that is to say, that it was influenzal pericarditis. Let me repeat, however, that you must take this observation merely for what it is worth. Then, in a more chronic form, after the trouble has passed off, by way of sequelæ we get other cardiac symptoms: a tendency to faintness, and serious anginal attacks, recurring in some patients for weeks or months, perhaps of the nature of neuralgia, which is one of the sequelæ of influenza. Again, many (happily not all) of the subjects of chronic cardiac disease will tell you that "from the time of their influenza" they began to suffer afresh from the symptoms of their disease—i.e., of cardiac failure.

I will next refer very briefly to *gastro-intestinal troubles*. I have told you that the patient occasionally suffers from retching or vomiting and diarrhœa in the course of influenza. I may add that at the present time as well as influenza there is found a curious little epidemic of diarrhœa, and that in the same house or in the same institution along with cases of influenza we may have sometimes to treat a series of cases of diarrhœa which we cannot explain otherwise than by attributing them to influenza. This is another complication which has been recorded by writers on previous outbreaks.

The *nervous complications* of influenza involve either the sensory or the motor side of the nervous system. Patients will tell you that since their attack they have suffered from neuralgias in the head or other region. Or certain parts of the body have become more or less weak—for instance, the hand or arm—apparently from neuritis arising in connexion with influenza.

With regard to the *treatment* of influenza, what are we going to do? The first indication manifestly is, as far as uncomplicated cases are concerned, to *combat a specific poison*. It is an epidemic infectious disease, and all our present pathological knowledge points to its being due to some poison of a specific kind. Fortunately, nowadays we possess many powerful drugs which have considerable influence over specific poisons, and we ought to lose no time in exhibiting some such remedy as quinine or cinchona, or one of the newer antipyretics. The second indication is a *symptomatic* one. The patient is urgently ill—in great pain, with high fever, and he calls to you for relief. You must give something which will remove pain as speedily as possible. This can sometimes be done by your quinine or antipyrin. But perhaps of all the plans at present being tried, the one that seems to be the most successful is to begin for a few hours, at any rate, with moderate doses—and you need not use more than moderate doses of from 10 to 15 grains every few hours—of salicylate of sodium. This relieves pain in some cases, especially in the present epidemic; but it should be left off as soon as the pain is relieved. In these cases it is used mainly as an anodyne. As for the febrile symptoms, these will have been relieved by the salicylate of sodium, accompanied by rest, proper feeding, and nursing generally. The next indication which we have to appreciate may be called the *prophylactic*—to prevent complications. We know that bronchitis or pneumonia may make their appearance, and we must do all that is in our power to prevent them. We also know that the trouble is associated with increasing debility, that relapse or recrudescence may occur, and that various sequelæ and slow convalescence are only too common. All these evils must be anticipated, and they serve as definite indications to you to support the patient's strength by every means at your command. This consideration brings us to the most important part of the treatment—that is, the necessity, the moment the symptoms of influenza make their appearance, that the patient should take to his bed and be treated there. The great danger of influenza is that the patients will not lie up sufficiently early; that if the attack is not swift and severe, they hang about and even go to business; that they neglect to make provision against those very urgent complications and this intense debility which will presently seize them. You must there-

fore prescribe for these patients rest and warmth in bed and faithful nursing, and you must support their strength by abundance of good food, by the administration of powerful tonic and stimulating remedies, such as cinchona, quinine, ammonia, and alcohol, and by the avoidance of depressing drugs, such as antimony, aconite, and ipecacuanha.

To sum up the treatment. Send the patients to bed, provide a good nurse, warmth, and rest, and feed them freely. See that the diet is fluid and of a highly nutritious and stimulating kind, including a definite allowance of wine or brandy. For the first few hours order ten or fifteen grain doses of the salicylate of sodium; and as soon as the pain is gone, drop that and put the patient upon free doses of quinine or cinchona. With these you may have to combine in different instances a whole series of other drugs. You may have to give in the case of bronchitis such powerful remedies as carbonate of ammonium or liquor ammoniæ acetatis; in cardiac complications digitalis and strychnine. In cases of pneumonia by combining these you will employ remedies directed both to the lungs and to the heart, and that along with quinine directed to the specific and original cause of the illness. This is a great deal of drugging, feeding, and stimulating, but the condition is one that calls for prompt treatment. There must be no waiting to see what you are to do next day, for by that time the patient may have drifted deeply into some of those very grave complications which I have just described, and may be beyond the reach of treatment.

CASE OF ACUTE, RAPIDLY FATAL, GENERAL PERITONITIS IN A CHILD, ASSOCIATED WITH VULVO-VAGINAL CATARRH.[1]

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GYNÆCOLOGICAL SPECIALISTS are well aware of the serious and even fatal abdominal complications which often arise from apparently trivial or neglected affections of the female generative organs. My experience as a pathologist has often convinced me of the serious dangers that may follow neglect of such affections, and therefore I thought it might be of interest to the Society to bring forward the following case, which occurred in the practice of my friend, Dr. James Headrick of Denniston, and which I saw in consultation with him.

The patient was a child, Mary M——, aged four years. Her father and mother had always been healthy, and the child, before the occurrence of her fatal illness, had never been under Dr. Headrick's care, although the other children of the family had for trifling ailments. On the morning of May 12th, 1890, the child took her breakfast as usual, her bowels having been opened before this meal, and apparently she was as well as ever. At 10 A.M., about two hours after breakfast, she went to her mother complaining of a "sore belly"; and her mother, thinking perhaps that the bowels required to be moved, took her to the watercloset, but nothing was passed except a little urine. During the forenoon the child was taken a walk of half a mile to her grandmother's house, where the abdominal pain became so severe that two drops of laudanum were administered. The patient had to be carried all the way home, after which a dose of salts was administered by her mother. During the afternoon the pain became worse, and Dr. Headrick was sent for between 5 and 6 P.M. He found the child pale and somewhat collapsed-looking; there was tenderness on the right side of the abdomen; the temperature was 104°; the pulse was small, and almost uncountable; there was no cough; and the urine appeared natural. Dr. Headrick at once applied fomentations, and ordered a cooling mixture containing one-drop doses of tincture of digitalis, on account of the state of the pulse. On the morning of the 13th the child was no better, and during the afternoon she became exceedingly restless and delirious. Dr. Headrick telegraphed for me in the evening, and I saw the patient about 8 o'clock. She was then very collapsed; the lips were dry, and she was continually trying to moisten them; there was great restlessness and occasional retching. The pulse numbered 120; the tongue was coated; and the face was extremely pale. The abdomen was uniformly distended, and the percussion was tympanitic all over. Considerable expression of pain was elicited on pressure beneath the umbilicus and over the right side of the abdomen. During my examination a profuse, sour-smelling, pale stool mixed with mucus was evacuated, and at this time I noticed a distinct leucorrhœal discharge from the vulva. On questioning the mother as to the vulvo-vaginal discharge, she told us that it had been present for some time, but as the child had made no complaint she had paid little attention to it. As to diagnosis, we agreed that the child was suffering from acute generalised peritonitis, and I could not help thinking also that the vulvo-vaginal catarrh was in all probability the cause of the serious peritoneal condition. I thought this the more likely in the absence of any history pointing to previous intestinal or peritoneal trouble, and the copious motion of the bowels which took place at my visit negatived the idea of organic obstruction. Had it not been for the leucorrhœa, the only conclusion to which one could have come would have been that the peritonitis was due to a sudden rupture of the intestine, probably of the appendix. The prognosis was necessarily most serious, and for treatment we recommended the continuance of the fomentations, four drops of laudanum every four hours, and half a teaspoonful of brandy every hour. The next day (the 14th) I received a note from Dr. Headrick, informing me that the child had died about 10 o'clock in the forenoon of that day. She gradually became exhausted, and towards the end livid. Convulsive attacks supervened shortly before death, and the abdomen became more distended. Unfortunately no post-mortem examination could be obtained.

Looking back upon this case after the lapse of nearly twelve months, I am not inclined to alter the opinion as to the cause of the peritonitis which I formed at the time, especially as I find that opinion corroborated by the experience of other physicians. Dr. Francis Huber of New York has reported a case of acute peritonitis following vulvo-vaginal catarrh in a girl seven years old, simulating a perforation of the appendix.[2] In this case, which was not so rapidly fatal, laparotomy was performed, and at the necropsy the fimbriated extremity of the right Fallopian tube was found "inflamed and thickened, and evidently had formed the channel by means of which the infecting process had gained entrance to the peritoneal cavity, and thus gave rise to a train of symptoms simulating closely a perforation of the appendix." Dr. Huber, in his paper gives references to other cases, and the lesson which they, as well as the case now recorded, teach, is that we should always have in view the possibility of this very serious complication in dealing with the vulvo-vaginal catarrh of childhood.

Glasgow.

[1] A paper read before the Glasgow Southern Medical Society, March 2nd, 1891.

[2] Transactions of the American Pediatric Society, vol. i., 1890.

KOCH'S TREATMENT AT THE ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.

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(Concluded from page 1145.)

CASE 9.—Percy S——, clerk, aged nineteen, strumous diathesis, fair, tumid lips. Height 5 ft. 6½ in.; weight 9 st. 4 lb. 10 oz. Admitted Nov. 5th, 1890. Has had scarlet fever and whooping-cough, and has always been very susceptible to cold. In August, 1890, he contracted a heavy cold with severe cough, which has persisted, with night sweats and loss of weight. He has had dull aching pains occasionally at both pulmonary apices, especially the right. Voice often husky after taking cold. This patient improved for the first fortnight after admission, but then began to go back, developing dyspeptic symptoms and losing weight, with increase of cough and return of night sweats.

Condition before inoculation: Pulse 86, good; first cardiac sound reduplicated in mitral area, and the second sound accentuated. Urine, sp. gr. 1028, giving haze of albumen with

picric acid. Dyspnœa on exertion. Physical signs in right lung: anteriorly flattening under clavicle; deficient expansion, with slightly increased vocal fremitus. Percussion note impaired to third rib, with prolonged respiration and increased vocal resonance; posteriorly same conditions to spine of scapula. Left lung: anteriorly and posteriorly increased vocal resonance at extreme apex, but respiration normal. Inspiration saccaded in axillary region and towards base. Expectoration (purulent), from two to three drachms a day, contains few sparsely scattered bacilli.

Patient was inoculated with 0·001 grm. of tuberculin at 10 A.M., when the temperature was 98·8°, on Dec. 27th. The temperature fell steadily until midnight, when it reached 97°, becoming normal next day at 3 P.M. The expectoration assumed a catarrhal character. The sphygmograph showed short systolic and long diastolic elements, the latter considerably longer than shown before inoculating. There was only local sweating confined to hands and feet. The urine fell to 28 oz.; its sp. gr. was 1020, markedly alkaline in reaction, effervescing on the addition of acetic acid; there was a slight flocculent deposit, with haze of albumen. The second injection of 0·0015 grm. was given on the 29th. The temperature rose to 99·6 at 3 P.M. The pulse fell from 80 at 9 A.M. to 65 at noon, rising to 76 only at 3 A.M. of the 30th. The sphygmograph again showed at first lengthening of diastolic element, but, as temperature rose, altered in character, the curve being higher and the descent more abrupt. There was a distinct enfeeblement of the first cardiac sound after the reaction in this and to a greater or less extent in all the other cases. This patient, from Dec. 27th, 1890, to March 31st, 1891, had in all twenty-one inoculations, increasing from 0·001 grm. to 0·1 grm., equal to 0·5595 grm. of tuberculin. The highest reaction was on Jan. 2nd; temperature 104° at 9 P.M. from 0·003 grm. of tuberculin. On ten occasions the maximum temperature was reached at 9 P.M.; on eight at 6 P.M. Headaches and pains in joints and stomach were prominent symptoms in this case after the earlier inoculations, but did not at any time prevent sleep.

Condition on leaving, April 5th, 1891: Height increased ¼ of an inch; weight increased 6 lb. 12 oz. on the lowest recorded. No pain or cough now; only spits once or twice in twenty-four hours. There is no sweating. Appetite very good; tongue clean; bowels regular; and sleeps well. Pulse 90, strong and full. Slight reduplication of first sound in mitral and pulmonary areas. Respiration 18; the movement over the whole chest is good, but slightly deficient at right apex. The percussion note over both lungs is resonant, and slightly higher in pitch below right clavicle, where also vocal resonance is increased. Expiratory murmur not prolonged. The patient states he feels in much better health than before the inoculations commenced.

CASE 10.—James G——, clerk, aged forty-five, tubercular diathesis. Marked clubbing of nails. Height 5 ft. 5¼ in.; weight 8 st. 4 lb. Father died of some pulmonary complaint. Three years ago, he says, he had a severe attack of "bronchitis," and has never quite recovered from it. A severe persistent cough began two years ago. There are two ounces daily of thick, greenish-yellow nummulated sputum containing abundant bacilli. There has been no hæmoptysis. The night temperature reaches 101°, and in the morning is subnormal. There have been night sweats for the last twelvemonth, with loss of appetite and emaciation.

Condition before inoculations: Urine, sp. gr. 1022, acid; slight mucous deposit, and haze of albumen. Pulse 102; soft and compressible. First cardiac sound in mitral area, and second sound in pulmonary area reduplicated. Respiration 25 per minute. Physical signs in lungs: Flattening at both apices, more so on left side, where movement is also more restricted. On the right side in front the note is impaired to the third rib, with expiration prolonged and vocal resonance increased, and distant amphoric breathing under clavicle. Behind, the note is impaired at apex, expiration lengthened, and increased vocal resonance to spine of scapula; an occasional click is heard at angle of scapula. Left lung: in front absolute dulness to third rib, impaired to fifth rib. Loud superficial cavernous breathing, with pectoriloquy, to lower margin of third rib, with crepitations over the whole of the lung. Posteriorly absolute dulness at apex and in supra-spinous fossa, and in the latter amphoric breathing, but no crepitations.

Patient was inoculated with 0·001 grm. of tuberculin at 10 A.M. on Dec. 27th, 1890. The reaction was very typical, and reached its height at 9 P.M.; temperature 102·5°. The pulse, as was noticed very often in this and the other cases, fell after the injection, but began to rise shortly after, and at 9 P.M. was 116. The breathing was unaffected, but the cough was severe, and the expectoration very frothy, and increased to three ounces in the twenty-four hours. There was great abdominal pain during the night, and this was a marked feature in his subsequent reactions. The urine, sp. gr. 1020, alkaline reaction, and flocculent; phosphatic deposit. Fine crepitations were heard over the left lung posteriorly. On the 29th these had disappeared, and he states that he "has coughed up less the last twenty-four hours than for the last two or three months." Bacilli were found thickly clustered in the sputum. By Jan. 5th he had lost 4 lb. 4 oz., and this loss of weight during the earlier inoculations occurred in seven of the ten patients under treatment. From this I infer that the earlier inoculations were excessive in amount, and involved much confinement to rooms and restriction of exercise. This loss was recovered by Jan. 19th, and increase of weight went on continuously. The fifth inoculation of 0·003 grm. on Jan. 8th was followed by crepitations on coughing over the whole right lung in front and at the apex behind; and in the left lung anteriorly there were crepitations on coughing at the base, and friction round the lower limit of the vomica; at the apex behind there were also coughing crepitations. The development from time to time after inoculation of peculiarly superficial, small, dry crepitations, especially over the bases of the lungs posteriorly, has been noted in nearly all the cases. They conveyed to the ear the impression of some pleuritic origin, as if the pleura itself was hyperæmic, or the pulmonary tissue immediately under it was affected in some way. The association often noted, after the earlier inoculations especially, of pains in the joints, abdomen, and head would point to some concurrent cause, possibly a hyperæmia, affecting in this particular manner the serous membranes of these parts, but not, however, due to the presence of any tubercular elements. Their disappearance was usually as sudden as their onset, and as complete. I arranged, in order to mitigate the distressing symptoms usually associated with the reaction, especially the gastric disturbance, that after injection the patient should remain in bed until reaction had subsided, and that all solid food should be avoided, the diet being a full allowance of milk, beef-tea, eggs, &c. This rule, as regards diet, was experimentally departed from on January 17th, and the patients allowed to dine off chicken and vegetables, with the result, in each of the nine cases inoculated that day, of causing the only really distressing reaction crisis observed, with an excess of temperature of from 1° to 3° over the temperatures of the preceding and subsequent inoculations, and followed by extreme weakness and depression. To April 14th this patient had twenty-two inoculations, the highest 0·065 grm., equal in all to 0·4625 grm. of tuberculin. This patient is still under treatment, receiving one inoculation per week. They have never exceeded 0·06 grm., as the temperatures during reactions have been sufficient with comparatively small amounts, the highest reached on Jan. 8th being 104·6° after 0·002 grm. In this case I was first impressed with what seems to amount almost to a law, that, in proportion to the extent and activity of the tubercular lesions, the greater and more prolonged was the reaction to the same doses of the lymph; hence the more advanced the condition the greater the necessity of smaller doses and longer intervals in its administration.

Condition on leaving, April 16th, 1891: Weight 9 st. 3 lb., being a gain of 13 lb. since Dec 25th, and a gain of 17 lb 4 oz. since Jan. 5th. The patient has improved remarkably in condition and appearance. He expresses himself as "feeling wonderfully better." He has no night sweats. The cough is easier, but the expectoration varies greatly; it is less in quantity, not so purulent and nummular; bacilli, however, are still abundant. The appetite and digestion are excellent, and the functions regular. Physical signs: First sound of heart reduplicated in mitral, and both sounds reduplicated in aortic and pulmonary areas. The pulse is stronger and fuller. The lungs: Flattening marked and movement deficient under both clavicles, more so at left apex. Right lung, anteriorly, note dull to nipple, with increased vocal fremitus, amphoric breathing under clavicle, with a few scattered crepitations. Posteriorly dulness to inferior angle of scapula and a very few crepitations. Left lung, anteriorly, note to nipple more impaired than on right side; loud superficial amphoric breathing,

with crepitations only on coughing. There are a few crepitations at the extreme base. Posteriorly there is dulness to spine of scapula. Obscure amphoric breathing audible in supra-spinous fossa, towards base a few scattered crepitations.

The treatment of these ten cases extended over a period of from thirteen to sixteen weeks. One hundred and ninety-seven inoculations were made, and in no instance was there any local inflammation excited at the site of puncture. Four grammes and fifty-three milligrammes of tuberculin were in all used. Five of these patients were in the early stages of phthisis, five in the advanced stage with cavitation—in one of the latter the excavation was much more extensive and of longer standing than in the other four. All of them made a notable increase of weight from the lowest point recorded during treatment. The total amounted to 102lb. 15oz., or an average of 10lb. 4oz. The highest weight gained was 21 lb. in one of the advanced female cases. With respect to the improvement in both the subjective and objective symptoms, which was most marked, I cannot more correctly express my opinion in general terms than by quoting the very words used by my friend, Professor Ewald, in describing his group of successful cases treated at the Augusta Hospital: "I have never seen so remarkable an improvement in the same time from any other treatment." I mainly attribute this result (1) to extreme care in selecting cases, not necessarily on account of their being merely in the early stage of the disease, but because they have sufficient strength to bear the exactions of a very potent and trying remedy, and (2) by rigidly following the advice of Professor Koch as to careful "individualisation"—that is, treating each case by itself as it were; for every patient reacts to tuberculin differently, both with respect to dose and phenomena. The success, therefore, largely depends on a sustained and continuous study of details, of which only those who have attempted it can fully realise the difficulty. I, of course, cannot yet venture to speak of cure in the strict sense of the term in connexion with this treatment. During the last twenty years, among the large number of phthisical patients that have been treated in the Royal National Hospital at Ventnor, although a very considerable proportion have been restored to a condition of health, which has enabled them to resume their avocations, yet during all these years not a single case has been returned in the annual reports as "cured." The term "cure" can only be employed relatively in connexion with pulmonary tuberculosis. In this disease, even under the most favourable circumstances, cure must always be a process extending over a more or less considerable period of time, according to the extent of the disease, the amount of lung tissues destroyed, and the various determining conditions on the part of the individual. The aim of all treatment hitherto has been to raise the whole vitality of the system, so that the local affection may be included in the general improvement. Koch from the beginning distinctly announced that the inoculations *per se* could not cure tuberculosis in the sense of covering the entire treatment of the disease, but only to destroy at its seat its essential pathological element, the other conditions being treated on the general principles hitherto recognised. It is impossible to over-estimate the importance of this statement. Tuberculin is initially destructive in its effect, and therefore merely paves the way for those recuperative changes which act by restoring the degraded tissues to that degree of vitality which enables them to resist the infective agency—the tubercle bacillus, which has been concerned in the development of the specific local affection. Tuberculosis must be regarded as an essentially parasitic disease. I have elsewhere[1] given my opinions on this subject, and endeavoured to show that only on this theory of its nature can a rational treatment of the disease be founded. In view of my own very favourable experience of Koch's treatment in the ten hospital cases reported, and also in twelve private cases all unbroken by a single suggestion of anxiety, I confess myself quite unable to understand the failure and even disasters that have attended this method in other hands. The experiences reported from Paris and some other capitals are to me simply inexplicable. It would hardly meet the question to suggest that in some instances the lymph may have undergone decomposition into some toxic elements. I have myself observed that the activity of tuberculin varies sometimes in different bottles, and in one bottle the first dilution (into decigrammes) reduced, even with sterilised half per cent. solution of phenol, invariably decomposed within a few hours. Space does not permit of my doing more than refer to the theories advanced as to the *modus operandi* of the remedy. I am inclined to think that the destruction of the tuberculous tissue, as stated by Koch, is accomplished by the increased energy of the phagocytes excited by the stimulation of the tuberculin introduced into the circulation. The almost invariable, and in most instances remarkable, impetus given to nutrition, as shown by increased appetite and consequent gain in weight, by the inoculations, in many cases where previously complete anorexia existed, would seem to bear out this view. In conclusion, let me say that I firmly believe that Koch's discovery will soon emerge from the temporary disfavour into which, from a singularly unfortunate train of circumstances, it has fallen; that it has therapeutic properties as valuable as they are unique; and that it only requires to be employed with due caution under certain easily ascertained conditions to receive the recognition it deserves as as invaluable and essential part of the treatment of pulmonary tuberculosis.

Ventnor, Isle of Wight.

[1] Proceedings of the Ninth International Medical Congress, Washington, vol. iv., p. 28.

A NEW METHOD OF PERFORMING CIRCULAR ENTERORRHAPHY.

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A YEAR and a half ago I applied for and obtained permission to try upon dogs some experiments as to the best plan of uniting a divided intestine end to end. The idea in my mind was to extend the principles involved in Professor Senn's operation of lateral apposition with decalcified bone plates to a direct and continuous union of the severed bowel. That end to end is preferable to lateral union, if it can be obtained with equal safety, stands to common sense, and that Senn shares this opinion is sufficiently indicated by his offering an alternative operation of this nature, though decidedly more fatal in its immediate results. The method that I desire to bring under notice is, I believe, much less dangerous than either, for it has not by itself been fatal in any dog operated upon up to the present. The operation is not suggested to replace the bone-plate method when, as in pyloric obstruction, lateral apposition is necessary, or in matting of the intestines with obstruction, when it is certainly advisable, but rather to replace previous methods of end-to-end union by invagination of the proximal into the distal portion of bowel. There can be no question that the bone-plate operation has proved a very marked success. It was evidently planned to meet the well-recognised causes of failure in stomach and bowel operations. The chief of these I take to have been (1) the time occupied, (2) the difficulty in securing safety from leakage, and (3) the laxity and mobility of the parts. Now, Senn's method shortens the time by about one-half, ensures such a perfect coaptation between the two portions of bowel as to defy leakage, and during the continuance of the bone plates the parts are kept supported and at rest as by a splint. Decalcified bone answers the purposes required of it in these respects remarkably well: firm, elastic, and yet too soft to damage the bowel; maintaining its rigidity during the first day or two, then gradually dissolving and melting away. In my experiments I resolved that decalcified bone should be the supporting material, and have had every reason to be satisfied with it. I had a number of bone tubes made about one inch long and suitable for the calibre of dog's intestine. These were prepared in accordance with Senn's directions. Altogether eleven experiments were made, of which the operation to be described was performed in eight consecutive cases. Four were allowed to live for long periods, and four were killed at early dates, but none were injuriously affected by the operation. Three dogs were operated upon with the object of elucidating points indirectly connected with the main subject. They all died in about thirty-six hours. In one the operation involved a partial resection of the coats of the intestine, which was followed by rapid sloughing and perforation. In another the mesentery was cut away from the colon for abou

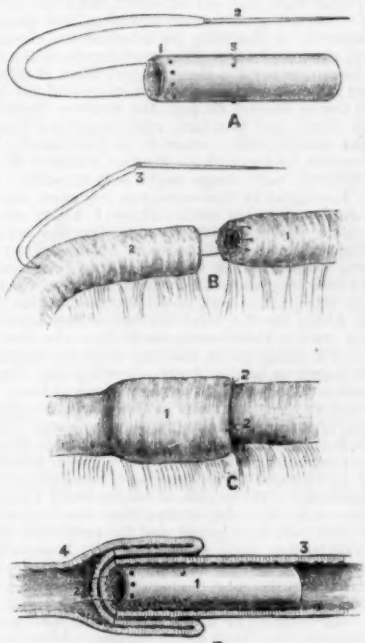
three inches, and an enterorrhaphy done at the spot. The bowel became gangrenous, though all reasonable care had been taken to save the vessels as much as possible. This operation was performed in view of the obstruction offered by the human meso-colon to invagination of any part of the colon. In the third of these experiments the ileum was cut away from the cæcum and connected with the rectum, the isolated colon being closed by invagination at each end. Fæcal matter contained in the colon was driven by peristaltic action to the lower end, where it formed a round ball, which, bursting open the Lembert sutures, liberated the invagination. The sutures in the mucous membrane held, but permitted the exudation of a little fluid from the intestine into the peritoneal cavity. This must have been rapidly fatal, for the dog was left well on the second night, and had been dead some hours when seen the next morning. The attachment of the ileum to the rectum was going on quite satisfactorily.

I learnt from these three cases three facts of importance in operating on the human subject. First, that it would not be advisable to attempt any operation involving interference with the individual coats of the intestine; second, that whilst the mesentery might no doubt be safely separated to a slight extent from the bowel if nothing further were done, yet in conjunction with enterorrahphy it would probably be fatal; and third, that if, under any unusual circumstances, it became necessary to isolate a portion of bowel, the lower end should be left open and attached to the wound.

I turn now to the eight experiments in which the operation I wish to recommend was performed. The first patient was a black-and-tan terrier. Under chloroform the abdomen was opened, and a piece of small intestine brought out. This was divided, and the bleeding arrested. Next a decalcified bone tube, charged with chromic gut sutures in the middle of its length, was inserted, one half into each end. The sutures were armed with sewing needles, by means of which the two ends of the bowel were at the same time sewn together and to the tube. The next thing to be done was to invaginate the bowel for about half an inch, which, though remarkably easy in the dead subject, proved quite the reverse in the living. However, with some roughness and much patience, it was accomplished in the end, the parts being retained in position by three Lembert sutures. The bowel was then cleansed and returned, and the abdominal wound closed with chromic gut sutures. Considering the rough handling of the bowel I fully expected some sloughing, and was agreeably surprised to find how well the dog appeared to be the next day. The diet was very carefully restricted, only water and gradually increasing quantities of beef-tea being given during the first three days. On the fourth bread-and-milk was added, and all seemed to be going on remarkably well, when straining at stool caused the abdominal sutures to give way, and a piece of bowel escaped. Chloroform was administered, and though no great harm had been done, and the invaginated bowel appeared to be in perfect condition, it was judged right under the circumstances to kill the animal at once. At the necropsy the union at first sight appeared perfect, but closer inspection showed that the invagination had been incomplete on the mesenteric side of the bowel, and but for the attachment of the omentum here there might have been some leakage. Also, it was seen that the distal end had been invaginated into the proximal instead of the reverse, a condition which would, I believe, by other methods have been almost necessarily fatal.

It was quite to be expected that in the first case, especially in the hands of a surgeon unaccustomed to operating upon small animals, things would not go perfectly smoothly. I could see three points required attention. First, the abdominal wound must be better sutured, and the subsequent substitution of silkworm for chromic gut removed that source of danger. Secondly, the bowel must be more carefully invaginated, special attention being paid to the mesenteric border; this too was satisfactorily accomplished in future cases. And thirdly, the actual process of invagination must be made more certain and easy, or the operation on the present lines would be extremely likely to break down from simple inability to accomplish the fundamental step. Believing that experience would suggest some better method if the difficulty on further trial proved as serious, I shortly repeated the operation on a black, rough-haired puppy. Invagination was again only accomplished with the same force and patient persistence. It seemed that the more we tried to push the proximal end of the bowel with the tube into the distal end, the more the latter contracted and resisted. Once, however, start the invagination, and it could be increased to any extent. Though the operation had been very severe, the puppy rallied well, and was soon quite lively. The same night only water was given him, the next day one ounce of beef-tea; second day, two ounces of milk; third, four ounces of milk, and one of beef-tea; bread-and-milk on the sixth; meat on the eighth. On the eleventh turned out of the laboratory, and put in charge of the porter. In about a month's time the puppy had grown double its previous size, and was fat and well, as it had been all along. It was therefore killed, and a necropsy made. Externally the slight scar round the bowel was easily detected, especially as there was a little dilatation of the part just above it. Internally, the calibre of the bowel appeared to be lessened by about one-half, owing to a ring or diaphragm of soft mucous membrane at the site of the invagination. In subsequent cases it was observed that this diaphragm tended to disappear, and considering the nature of the operation it could hardly be expected that the redundance of tissue constituting the invagination could atrophy in four weeks.

In the meantime I had been at work seeking for a more certain method of accomplishing the operation, and at last, by a very simple addition, succeeded. This consisted in supplying the bone tube with a traction thread to be passed through the wall of the distal segment of bowel, for an assistant to pull on whilst the operator manipulates the invagination. I had found the chromic gut sutures attached to the middle of the tube and their six needles very inconvenient, owing to their tendency to get entangled at a critical moment, and therefore discarded them, the tube now assuming the character shown in the engraving (A). The



A. The decalcified bone tube: (1) the lower or distal end, perforated for sewing to the bowel; (2) the traction thread armed with long sewing needle; (3) its attachment to the tube. B. A stage in the operation: (1) the proximal end of the bowel, with the tube sewn in; (2) the distal end, not yet sewn to the proximal end, but with the traction thread (3) passed. C. The operation completed: (1) the sheath or intussuscipiens of the invagination; (2) the Lembert sutures, for retaining the parts in position. D. The parts dissected: (1) the tube *in situ*; (2) the traction threads cut short; (3) the proximal end of bowel entering the intussusception; (4) the distal end, supplying the returning and ensheathing layers.

tube itself for small dogs should be about 1 in. long by $\frac{2}{3}$ in. outside diameter and $\frac{1}{16}$ in. thick. The lower end (1) is perforated for easily sewing the proximal end of the bowel

to it, and the traction thread with its needle (2) is fixed well back on the tube (3) to make certain that it cannot break away. For the human bowel I have had made tubes[1] 1½ in. long, with diameters varying from ½ in. to ¾ in. and ⅛ in. in thickness.

The operation is now performed in the following manner: The bowel being ready to receive the tube, its full length is introduced into the proximal end, the cut margin of which is sewn to the tube through the perforations with a fine continuous, chromic gut suture (B). For this purpose a sewing needle is used, which, in passing, is made to dip more deeply into the mucous than the peritoneal coat. It is not sufficient to take the muscular and mucous coats only, as the attachment to the tube is then not sufficiently secure. When sewing the mesenteric border of the bowel to the tube, care should be taken to pick up the severed edges of the mesentery with the point of the needle, as this is the part most likely to give way, and the mesentery should not be allowed to drag in the least degree from the cut edge of the bowel. Next the needle of the traction thread is slipped along a director about 3 in. down the distal segment of the bowel and pushed through its wall. Then the distal is sewn to the proximal end by a chromic gut suture all round, the needle piercing the musculo-serous coats only, great care again being taken to fix the mesenteric edge securely. With the same thread the opening in the mesentery can be drawn together. Now an assistant takes the traction threads, and steadily resists the operator as he draws the distal end of the bowel back over the tube, thus invaginating the proximal end, and producing the appearance seen in the engraving (C). The parts are retained in position by a few Lembert sutures, one on either side of the mesentery, and others as they appear necessary. Lastly, the traction thread is pulled tight and cut off short, the small opening caused by it requiring no further attention, and the operation is completed by cleansing the intestine and closing the abdomen in the usual way. The special part of the operation may be said to involve three stages: First, to introduce the bone tube into the upper or proximal end of the bowel, and sew it there; second, to pass the traction thread, and attach the distal and proximal ends together; third, to produce the invagination, retain it in position by a few Lembert sutures, and cut off the traction thread. With no unusual difficulty each stage ought only to occupy a few minutes. I operated in this way upon six more dogs, and they all did remarkably well. Three I killed at short intervals after the operation, to examine the condition of the bone tubes and the stages of repair. They were in excellent health at the time, it having been arranged beforehand how long each dog was to live after the operation. This was carried out in all but one, which should have been killed on the third instead of the fourth day. These dogs were allowed more food than the first two, bread-and-milk being given the day after operation, and nearly all passed a motion daily, showing that the tube offered little or no obstruction to the passage of food. They were not tied up, but left loose in the laboratory, jumping and playing about appearing to do them no harm. Indeed, there was nothing in their manner to indicate that they had been submitted to an operation. Those killed were destroyed at the end of twelve hours, two days, and four days respectively. At the end of twelve hours I found the parts much as I left them, except that the irregularities were smoothed over with lymph and the peritoneal surfaces of the invagination were adherent. The bone tube had practically undergone no change. From the dogs that died in the experiments previously referred to I learnt that the tube was present at thirty-six hours, but much softened. At forty-eight hours it is quite soft and probably collapsed, but the union strong. After this the tube disappears, and at first the lumen of the bowel partly closes with swollen mucous membrane, but it gradually enlarges again as the swelling goes down and the excess of tissue caused by the invagination atrophies.

Of the three that lived some time, one was killed at the end of two months in perfect health. There was still a slight, thin diaphragm at the site of operation, but offering much less impediment, if any now, to the passage of the intestinal contents. One is still living in Manchester, the domestic pet of a friend of the porter, and is reported in its usual health just twelve months after the operation. The other is also living, and very fat and hearty, three months after the operation.[2]

I was particularly struck in all these latter cases with the (to me) extraordinary absence of any sign of pain or illness after the operation. I attribute it to the absolute security from leakage, owing to the firm and close approximation of the parts by this method of operating. It is not altogether due to the nature of the dog as compared with man, for in the faulty operations the dogs, in my opinion, failed more quickly and completely than a man would have done under the same circumstances. Like children, they recover rapidly; but stand shock badly, and collapse at once if anything goes wrong.

In conclusion, I wish to point out that, should any surgeon think sufficiently well of this operation to make use of it in the human subject, it should, in the first place, be limited to quite suitable cases, in which it is necessary to divide or excise a portion of small intestine. I have had only the opportunity of trying it in a case of malignant stricture of the colon, in which, owing to the shortness and inflexibility (due to fat) of the mesentery, a satisfactory invagination could not be produced, another plan having to be substituted in its place. I think this would often be the case with human colon. Sometimes in spare subjects and children, especially in the region of the sigmoid flexure, it could easily be accomplished. Yet in sigmoid colotomy I have often found difficulty in simply invaginating the lower end of the bowel, when the mesentery was short and fat, though that form of invagination is the easiest one could have to do. That the mesentery is the source

TABLE OF INVAGINATION EXPERIMENTS.

Animal.	Operation.	Result.
1. Black-and tan terrier.	Invagination of small bowel on tube without traction thread.	Killed fourth day, on account of rupture of abdominal wound. Bowel invaginated wrong way, but well united except one spot on mesenteric side covered by omentum.
2. Rough-haired black puppy.	Do.	Killed one month. Grown double size. Calibre of bowel at site of operation lessened by circular fold of mucous membrane.
3. Scotch terrier.	Invagination with tube and traction thread.	Killed two months. Perfect health. Still partial diaphragm, but offering no obstruction to feces.
4. Young brown terrier.	Do.	Killed three months. Grown and in vigorous health. Union perfect. No obstruction whatever.
5. Fox terrier.	Do.	Still living twelve months after, and in usual health.
6. Small fox terrier.	Do.	Killed twelve hours. Tube unchanged. Invagination adherent by recent lymph.
7. Fox terrier.	Do.	Killed forty-eight hours. Doing very well. Bowel firmly united. Tube soft and collapsed.
8. Fox terrier.	Do.	Killed fourth day. Tube gone, bowel well united. Lumen much closed by folds of recent invagination. (This dog should have been killed on the third day.)

TABLE OF OTHER EXPERIMENTS.

Animal.	Operation.	Result.
1. Large rough-haired terrier.	Tube, with resection of coats of bowel.	Sloughing, and death in about thirty-six hours.
2. Fox terrier.	Three inches of mesentery cut away from colon, and enterorrhaphy done.	Gangrene of bowel, and death about thirty-six hours after.
3. Fox terrier.	Implantation of ileum into rectum. Invagination of each end of isolated colon.	Lower end of colon partly opened up. Extravasation, collapse, and death in about thirty hours.

[1] By Mr. Reynolds, 9, Rodney-street, Liverpool.

[2] This dog was shown at the Liverpool Medical Institution, April 9th, when it was suggested by the President, Mr. Mitchell Banks, that the Society should have an opportunity of inspecting the condition of the bowel at its next meeting. Accordingly, on April 23rd, the animal having been killed, Dr. Ross opened it at the meeting and examined the bowel. The site of operation was indicated by a circular scar about one-sixteenth of an inch broad and quite soft. There was no trace of roughness or adhesion to omentum or other parts, and there was no obstruction whatever, the bowel above having exactly the same diameter as below, and the calibre at the site of the scar being the same as elsewhere. The President considered the union as perfect as anything of the kind could be.

of difficulty I believe there can be no doubt. It was on this account that the experiment of cutting away the dog's meso-colon was made, with the discouraging result of gangrene of the bowel. It seems to me that injury of the small intestine, whether direct or the result of internal or external strangulation, or any disease requiring excision of a portion, will form the class of cases most suitable for a trial. In such it will be at least no longer than Senn's operations, and decidedly more secure than either his invagination or bone-plate process. When properly done leakage is impossible for about thirty-six hours in the dog, and I should say for at least double that time in man, as the tubes can be made much thicker, and digestion is less vigorous. Another advantage of this method is that so long as the tube is sound liquid food may be given with impunity. During the first two days, the most important time of all, there is no occasion to withhold nourishment. On the third day the tube will probably be collapsing, and the lumen of the bowel partly blocked. It would, therefore, be wise to somewhat restrict the diet at this time, but not to limit it as has been too much the practice, to a little water and meat extract, for good sound, rapid healing cannot take place in a starving body. The success or failure of the operation will not, however, rest upon minor details of treatment, but upon the broad lines of the facility or otherwise with which it can be put into practice, and the nature of the union effected by it. I am now only awaiting a suitable case of the kind indicated to put this operation into practice and report on the result.

Liverpool.

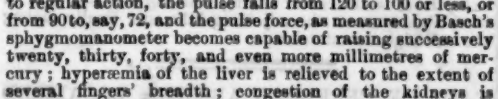
THE TREATMENT OF CHRONIC DISEASES OF THE HEART BY MEANS OF BATHS AND GYMNASTICS.

BY THEODOR SCHOTT, M.D., BAD NAUHEIM.

(*Concluded from page 1147.*)

I HAVE been able in another publication to show that a course of baths stimulates the heart to increased contraction by imbibition, not by absorption, through the influence of the reflex action of sensitive nerves; and I desire now to point out that a gymnastic course is capable of inducing identical results through the influence of motor nerves. That such is the case may be readily ascertained by percussion, the recession of the dilated organ being first noted on the right side, and later on the left. Diminution of the vertical diameter of the heart is less easily and more tardily induced; but perseverance in the treatment will often ensure the attainment of that end, as indicated by the ultimate rise of the situation of apex impulse. On auscultation a divided heart sound may be heard to become normally uniform, showing that no actual valvular lesion existed. In those cases of valvular affection in which, in consequence of the weakness of the muscular tissues, the sounds have been barely audible, they become distinctly marked; frequently dyspnœa is relieved, irregular gives place to regular action, the pulse falls from 120 to 100 or less, or from 90 to, say, 72, and the pulse force, as measured by Basch's sphygmomanometer becomes capable of raising successively twenty, thirty, forty, and even more millimetres of mercury; hyperæmia of the liver is relieved to the extent of several fingers' breadth; congestion of the kidneys is reduced; and the secretion of urine becomes normal or even excessive. At the same time, appetite, sleep, and the health generally manifestly improve, mental depression gives place to a cheerful spirit, while in the end the permanence of the result shows the incontestable superiority of the treatment which I advocate to that which might be attempted by means of digitalis and other heart stimulating drugs. In proof of my contention, I subjoin the following tracings of the pulse of a patient aged thirty-one, suffering from cardiac weakness, who was treated with a Nauheim effervescent bath.

FIG. 1.



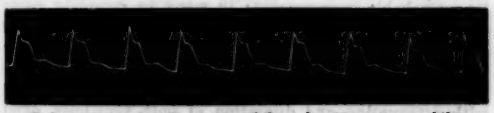
Before bathing: Frequency of the pulse, 94; pressure of the pulse, 120 millimetres of mercury.

FIG. 2.

After the use of a Nauheim effervescent mineral bath of 87° F., duration fifteen minutes: Frequency of the pulse, 72; pressure of the pulse, 140 millimetres of mercury.

Also the following tracings, which exhibit the effect of the same treatment on a patient aged forty-six, affected with stenosis ostii arteriosi sinistra.

FIG. 3.



Before gymnastics: Frequency of the pulse, 80; pressure of the pulse, 125 millimetres of mercury.

FIG. 4.

After half an hour of gymnastics with resistance: Frequency of the pulse, 65; pressure of the pulse, 160 millimetres of mercury.

Although at Nauheim the treatment mainly consists in the administration of baths, with which I myself combine a gymnastic course, I could enumerate a large number of instances in which marked improvement, and others in which complete cure, have been attained by gymnastic exercises alone, while in other instances in which it became necessary to interrupt the course of baths, gymnastic exercises practised by the patients at their homes have proved effectual in maintaining the improvement already secured, and even in effecting further recovery of heart power. It must not, however, be overlooked that hygienic conditions, and especially the regulation of diet, will require the attentive consideration of the physician. Most of the patients under consideration being more or less ill nourished and anæmic, their food should be of a definitely invigorating description. With many it is necessary to direct attention to the improvement of the quality of the blood stream, and to increase the amount of adipose tissue. To attain these ends the diet should be very easy of digestion, and the free use of albuminoid foods and of butter should be insisted on, and if necessary peptones should be administered. Sometimes it may be necessary to relieve the more vigorous who exhibit indications of fatty degeneration of the heart tissues of a certain amount of their fat, but very serious consequences may ensue unless this end be pursued with the greatest caution and by very slow degrees. I have elsewhere reported a case analogous to one prominently alluded to by Oertel—namely, of fatty degeneration complicated by kypho-scoliosis, which was cured, without enforcing any reduction in the amount of fluid taken and without any diminution of the body weight, by regulation of the diet, baths, and gymnastics. Generally speaking, it is better to prescribe frequent small meals than heavy ones taken at comparatively long intervals, as it is important to avoid upward displacement of the diaphragm. For the same reason effervescing beverages, whether natural or artificially prepared, whether alcoholic or otherwise, as well as beer, must be withheld. I generally recommend light wines, and, where stronger stimulants are indicated, from 20 to 30 cc. of diluted cognac, to be taken two or three times a day.

North of the Alps, the best months for treatment by baths are May, June, August, and September. July, the hottest month, should be passed in a mountain resort of moderate elevation, say, from 600 to 900 metres above the sea level. The regions I generally recommend are the Black Forest, the Hartz mountains, Switzerland, Thuringia, and the Carpathian heights. By preference, the winter should be passed in some southern region. San Remo, Bordighera, Nervi, Cannes, and places of similar climatic

character, in which rainy days are few in proportion to sunny ones, and where the invalid can spend the greater part of the day in the open air, are the most suitable.

With regard to the pathological contraindications for treatment, setting aside those aggravated cases of cardiac disease which are obviously beyond the reach of any treatment, I have only two to enumerate—aneurysm of the heart and aorta and progressive arterio-sclerosis. In such, the slightest additional blood pressure may prove fatal. A small amount of arterio-sclerosis offers no contraindication to bath treatment. As regards other heart affections, whether functional or organic, congenital or acquired, I am able to attest that no evil effect can be attributed to the practice of the system which I am advocating. On the contrary, in the great majority of instances it is followed by remarkable improvement; in many by complete cure. I may instance the marked improvement reported to me a year after treatment by the Nauheim baths of a patient, twenty-eight years of age, affected with well-marked congenital mitral incompetence.

The following are tracings taken from a patient affected with attenuation and dilatation of both ventricles, aged twenty-six, who was under treatment three years and a half ago, and who has up to the present time continued to enjoy good health.

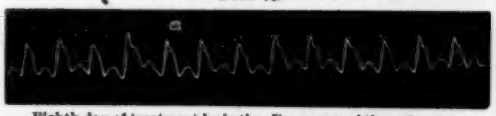
FIG. 5.

Before the beginning of the treatment the pulse could not be counted (more than 150); pressure of the pulse, 82 millimetres of mercury.

FIG. 6.

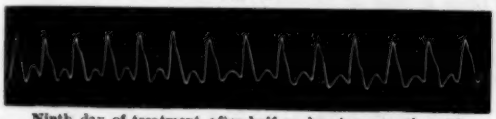
After the first bath, containing 1 per cent. of salt, temperature 89·5° F., duration ten minutes.

FIG. 7.



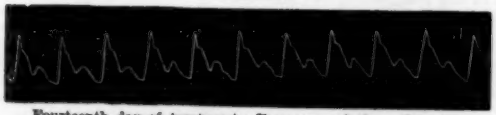
Eighth day of treatment by baths: Frequency of the pulse, 144; pressure of the pulse, 95 millimetres of mercury.

FIG. 8.



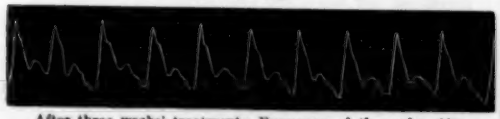
Ninth day of treatment, after half an hour's gymnastics with resistance: Pressure of the pulse, 110 millimetres of mercury.

FIG. 9.



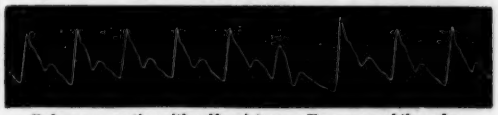
Fourteenth day of treatment: Frequency of the pulse, 108; pressure of the pulse, 115 millimetres of mercury.

FIG. 10.



After three weeks' treatment: Frequency of the pulse, 108; pressure of the pulse 125 millimetres of mercury.

FIG. 11.



Before gymnastics with self-resistance: Frequency of the pulse, 102; pressure of the pulse, 130 millimetres of mercury.

FIG. 12.

After an hour and a quarter of gymnastics with self-resistance: Frequency of the pulse, 93; pressure of the pulse, 145 millimetres of mercury.

I must not close these observations without making some reference to the diseases in the course of which cardiac affections mainly originate or are most commonly observed as complications, and for which the Nauheim and other waters are the most effectual remedies: rheumatism of the structures generally, and widely diffused among them as to its effects; acute rheumatism of the articular kind (specially alluded to by Beneke with reference to the Nauheim waters); congestive affections of the kidneys, in which a considerable diminution in the quantity of albumen or its complete disappearance may be looked for; abdominal plethora, especially of the gouty kind; and intestinal dilatation, especially when complicated with constipation. Such cases are often relieved with great promptitude by our Kurbrunnen and Karlsbrunnen, the former being very similar to the Kissingen Ragoczy and the latter differing but little from the Homburg Elizabethbrunnen. Our Ludwigsbrunnen, closely resembling Vichy water, with its constituents of lithia and bicarbonate of soda, also yields excellent results. The Schwalheim spring, rich in ferruginous ingredients, is effectual in relieving the chlorosis and anæmia which so frequently attend cardiac affections.

In conclusion, I would beg to offer a reply to some of my colleagues, both in Germany and abroad, who inquire in what lies the special suitability of Nauheim for the treatment of cardiac disease. In the first place, it depends on the remarkable constitution of our waters and their great variety which favour their application to so many kinds and phases of disease; their range extending from the simplest kind of brine bath to the strongest flowing effervescent baths; their appropriate natural temperatures, which range from 95° to 80° F.; and the opportunity of bringing into simultaneous use several different drinking waters containing the various mineral ingredients which have been specified. In the second place, it depends on the situation of the place itself, lying as it does at the foot of the Taunus mountains on the edge of a widely extending plain, and enjoying a climate of a mildly stimulating character, and affording exceptional facilities for taking walking exercise, first in the plains, next on the adjoining hills, and finally among the still higher mountains.

CASE OF CEREBRAL ABSCESS, LOCALISED BY "FOCAL" SYMPTOMS, AND SUCCESSFULLY TREATED BY TREPHINING; INTERCURRENT HÆMATURIA.

BY EDWARD N. NASON, B.A., M.B. CAMB., M.R.C.S.

GEORGE S——, a hatter aged eighteen, having been previously in good health, fell down on the slippery pavement on Jan. 8th last and struck the back of his head as he fell. He did not think much of the fall, or even mention it to anyone at the time, but from that date he began to suffer from headaches. He fell a second time in a similar way on Jan. 22nd, and again on the following day. The third fall was at 8 A.M., and made him feel sick, though he did not vomit, but at 10 A.M. he began to shiver, and continued to do so until nearly 1 o'clock. He went to work again the next day, but came home in the afternoon feeling ill. From that day

until Feb. 3rd he remained at home, spending most of his time sitting over the fire, and suffered from headache of sufficient severity to prevent his sleeping at night. (This history was obtained from the patient subsequently, during his convalescence.) On Feb. 4th I saw the patient in consultation with my brother, Dr. W. S Nason. He was then extremely ill; temperature 103·4°; tongue brown, coated, and dry; bowels confined. He complained of severe frontal headache, worse on the right side. There were one or two cooing sounds scattered over both chests and a soft basic systolic murmur. The examination of the abdomen gave no evidence of enteric fever. The urine was free from blood or albumen. On Feb. 5th the temperature rose to 104°, and remained the same on the 6th, while the pulse was only 56 to 60 per minute, and was not particularly full. He was becoming drowsy and apathetic, and wandered slightly at night. Cerebration was extremely slow; he answered questions after an interval of about twenty seconds, but his answers showed that his mind was perfectly clear. He complained of severe headache, the point of maximum intensity being at about one inch behind and one inch above the external angular process of the right frontal bone; also of pain in the back of the neck on movement. There was no vomiting, and no further sign of mischief in chest or abdomen. On the morning of Feb. 7th I noticed left facial paralysis and paralysis of the left arm, with impairment of sensation (chiefly tactile sensation) over the paralysed areas. The tongue also deviated slightly to the left when protruded. I thought, too, that the left leg did not move quite so freely as the right. There was no paralysis of the ocular muscles, and the pupils were equal and reacted to light. There was well-marked double optic neuritis, with distension of the retinal veins, more marked in the right than in the left eye. The patient was becoming more somnolent, and was apparently quite unconscious while his eyes were being examined. On the 8th the temperature came down to 99·4°, but without any improvement in the general condition. At 3 A.M. on the 9th he had a rigor lasting till 3.30 A.M., and at twelve o'clock he had a convulsive seizure, beginning in the left side of the face and the left arm. This was accompanied by conjugate deviation of the eyes to the left, turning of the face to the left, and considerable cyanosis From these symptoms taken together I concluded—(1) That the patient was suffering from cerebral abscess, possibly of traumatic origin; (2) that the abscess was situated in the substance of the brain somewhere between the cortical centres for face and arm and the internal capsule, causing the paralytic symptoms; (3) that it was beginning to involve the cortex near those centres, causing the symptoms of cortical irritation; (4) that trephining gave the patient his only hope. After a great deal of difficulty I obtained the consent of the parents.

On the evening of the 9th the head was shaved and prepared for operation, and the room cleaned and all unnecessary furniture removed. On the 10th the patient was anæsthetised with the A.C.E. mixture, and trephined over the lower third of the fissure of Rolando, the point on the skull being over the temporal ridge, an inch and a quarter behind the coronal suture. A semilunar flap was raised and a small portion of temporal muscle freed from its attachments. When the button of bone (¾ in. diameter) was removed, the dura mater was seen to be bulging and without pulsation. A small wound in the dura made by the lower edge of the trephine was enlarged, and the brain, which was anæmic and flattened at that point, was exposed. While an exploring trocar was being prepared a small bead of pus was noticed pushing its way up from beneath the cortex of what was probably the lower portion of the ascending frontal convolution. This opening was at once enlarged, and about half an ounce of thick, yellowish, gelatinous pus, free from odour, allowed to escape from an abscess cavity situated slightly below and anterior to the opening. A small drainage-tube was inserted, the pericranium stitched down with catgut sutures, but the bone not replaced, and the wound closed and dressed with powdered boracic acid and wood-wool wadding. I was assisted in the operation by our two district nurses, to whose subsequent untiring care the ultimately successful result was largely due. At 3.15 P.M. the patient had a slight fit, consisting in twitching of the mouth, grinding of the teeth, conjugate deviation of the eyes to the left, and turning of the head to the left, accompanied by stertorous breathing, but no movement of the limbs. This fit lasted about five minutes. At 7 P.M. the patient, who was quite conscious and had said that the pain in the head was much less, complained of feeling extremely cold down the left side and of a great deal of pain in the left shoulder. The surface temperature on the left side was found to be very distinctly less than on the right, the skin feeling quite cold to the touch. About 10 oz. of high-coloured urine were drawn off by soft catheter. The left leg seemed to be moved quite freely now, but the left arm and the left side of the face were unaltered.—Feb. 11th: Patient slept the greater part of the night. His breathing was natural; temperature normal; pulse 58. He complained of stiffness of the left shoulder and pain down the whole of the left side. There was no return of movement or sensation in the left arm or face. The wound was dressed and looked healthy; a considerable amount of discharge had come through the tube, but it was very thick, and did not flow readily. Patient answered questions with less delay, and was less drowsy. He passed urine naturally; bowels confined.—12th: Patient passed a good night, but at 1.30 A.M complained of much pain in the left arm. After it had been rubbed for some minutes he suddenly gained power and sensation from the shoulder to the elbow. At 7 P.M. he regained power in the forearm. The wrist and fingers remained paralysed, but he had to some extent regained sensation in them.—13th: Patient slept through the whole night and the greater part of the day. The pulse, which in the morning had risen to 72, fell again in the evening to 56 per minute. The wound was dressed, and all stitches removed. The tube was removed, cleaned, and replaced.—14th: The patient slept all through the night, and asked to be allowed up this morning. At 5.30 P.M. he was lying on his left side, and was trying to move his still paralysed wrist and fingers. He turned over on to his right side, and at once regained power in both. Temperature 98°; pulse 58. Knee-jerks present; no ankle clonus. Face still paralysed on left side.—15th: A good deal of discharge from the wound; flap showed signs of giving way. Tube removed from the brain, shortened, and replaced in external wound. Face still less paralysed; power in hand returning. Optic neuritis still remained, but retinal veins were no longer distended.—17th: Flap had given way almost entirely, and there was free suppuration. The intrinsic muscles of the hand were still paralysed, but power of grasping had steadily increased. The adductor and opponens pollicis were the last muscles to regain power.—20th: Wound granulating healthily. Optic neuritis slowly subsiding.—22nd: At 1 P.M. patient began to pass porter-coloured urine, which on examination was found to contain a considerable quantity of blood and a proportionate amount of albumen, several fibrinous and a few hyaline casts; sp. gr. 1018. The urine was also crowded with micrococci and was very greatly increased in quantity. The temperature remained normal and pulse 72. No pain in the loins or in the urinary tract, and not the slightest discomfort or constitutional disturbance.—23rd: Patient still passed bloody urine, which, examined immediately after being passed, was still found to be crowded with micrococci, in chains and groups; some of the casts seemed to be formed entirely of micrococci; sp. gr. 1016.—26th: Urine still contained a trace of blood and some few micrococci; sp. gr. 1020. Patient steadily improving.—25th: Urine quite clear and free from blood and albumen.—26th: Both discs are still a good deal swelled, and cannot yet be defined.—March 10th: Wound healed. Patient allowed to sit up. Left disc can be fairly well defined, though still slightly hazy. Right disc cannot yet be defined.—23rd: Both fundi are now almost normal. Patient seems quite well, and but for the fingers of the left hand being still a little clumsy, has completely recovered.

Remarks.—The chief points of interest in this case are: 1. That a blow of apparently so trivial a nature should have given rise in a healthy boy to an abscess at a distant part of the brain as a result of *contrecoup*. There is, however, in the family a distinct tendency to suppurative inflammations, though in other respects the family history is good. 2. It is unusual that a cerebral abscess should give rise to symptoms sufficiently local to enable its position to be accurately determined. 3. That the case, occurring amid most unfavourable surroundings (an ill-smelling and insanitary cottage of four rooms and ten inhabitants, and by no means free from vermin), should have recovered without any drawbacks. 4. The mode of recovery from the paralytic condition goes to prove that the various cortical centres are centres for associated movements and not for individual muscles; also that sensation and motion are

represented together in the central convolutions. It also would tend to prove that the centres for the various associated movements of the arm are placed from above downwards in the following order: shoulder, upper arm, forearm, wrist, and hand, the thumb being lowest of all. 5. The one-sided coldness due to constriction of peripheral vessels points to a disturbance of a corresponding vaso-motor centre. 6. The intercurrent hæmaturia, accompanied by increased urinary secretion; the urine having certain peculiarities in common with a condition noticed as occurring in the course of suppurative meningeal affections, and suggestive of a kindred cause.[1] 7. The presence of micrococci in the fresh urine.

Note.—May 26th: Patient, who has been at work for the past six weeks, remains in good health, and has quite lost the clumsiness of the fingers of which he at first complained.

Nuneaton.

NOTE ON A CASE OF EMPYEMA TREATED SUCCESSFULLY BY RESECTION OF THE RIBS.

BY SURGEON A. W. D. LEAHY, F.R.C.S. ENG.,
OFFICIATING RESIDENCY SURGEON, HYDERABAD, DECCAN.

W. M——, aged thirty-four years, a boiler inspector in the employ of the North-Western Railway, was admitted into the Civil Hospital at Quetta on March 6th, 1889, suffering from well-marked pleurisy of the right side. The patient stated he was taken ill four days prior to his admission into hospital, and that he was formerly a private in the first battalion of the Worcester regiment. He has been a fairly steady man during his life. He says that in the course of his daily work he has frequently been exposed to sudden and great changes of temperature, in having to get into the interior of locomotives for purposes of inspection, and then having to examine their outward mechanism, standing exposed to a cold keen wind while doing so. The man's temperature an admission was 102·4° F.; he complained of intense pain in the right side, which was increased during the act of inspiration, and suffered from a short, sharp, irritating cough. Linseed-meal-and-mustard poultices were applied to his chest, and he was ordered a saline and morphine mixture with half a grain of morphine subcutaneously at night. On the evening of the third day after his admission into hospital a distinct pleuritic rub or friction sound became audible just below the point where he complained of most pain. Seven days later this sound was no longer to be detected, and the physical signs showed the right pleural cavity had become filled with fluid. The patient's morning and evening temperature now remained normal, or a little above it, except for two days, during the remainder of his stay in hospital. He was, however, weak, anæmic, and suffered much from breathlessness on exertion, while the condition of his right pleural cavity as regards the fluid remained the same. The man now expressed his intention of leaving hospital and returning to his work, saying that he was losing pay and could not afford to remain. I strongly dissuaded him from this, and pointed out to him the folly of attempting to work in his then condition. However, he rejected my advice, and left hospital to return to his duties on April 15th. On May 26th he again sought admission, and on examining him we found the right pleural cavity still full of fluid. The man was looking greatly emaciated; had lost weight; complained of fits of shivering and of nightly attacks of fever. The morning temperature was 100°; evening, 103·4°. It was in every way probable we had now to deal with a case of empyema; or, in other words, that the fluid filling the right pleura, which at the time of the patient's leaving hospital was serous, had now become purulent. One of the smaller trocars of a Dieulafoy's aspirator was carefully introduced into the right pleural cavity, and about an ounce of laudable pus was withdrawn. Two days later—i.e., on May 28th—I made an incision in the sixth intercostal space, a little behind the mid-axillary line, opened the pleura, and introduced a piece of full-sized india-rubber drainage-tube into the cavity, evacuating two pints and a half of pus. The cavity was afterwards washed out with a solution of perchloride of mercury (1 in 3000), and the good effect of relieving tension became at once apparent; for the temperature of the succeeding day fell to normal, and continued so for many days—in fact, for as long as the tube drained the cavity. Our difficulties, however, were only just commencing. Day after day showed what we expected—viz., the falling in of the right side of the chest and the gradual approximation of the ribs one to the other, with, as a result, the lessening in size of the intercostal spaces. The opening of the chest cavity had been conducted antiseptically, and the discharge was still sweet, though greatly reduced in quantity. Matters continued thus until June 15th, by which date the ribs bounding the intercostal space in which the opening was made had so closely approached each other as to nip the indiarubber tube during expiration, completely preventing the exit of fluid from within the chest, while, during the act of inspiration, air entered the pleura through the tube. On June 15th the temperature, which had been normal or thereabouts since May 27th, suddenly rose to 102 8°. The indiarubber tube was removed on the next day and a silver tube introduced in its place, leading to the evacuation of a large quantity of pent-up matter This silver tube could not be closed by the pressure of the ribs, and it was tied in its place with tapes. For a time the tube acted well, but the pressure of the approaching ribs continued, and eventually rendered its removal difficult, while the edges of the ribs themselves became necrosed from the pressure they exerted on the unyielding metal of the tube. On June 28th the man's temperature again rose to 103°. This was due to the tube having become occluded by lymph within the chest, and I decided to remove a portion of the shafts of the sixth and seventh ribs opposite the opening in the intercostal space. Chloroform was administered on June 29th, and I removed an inch and a half of bone from each rib. This left an opening of considerable size into the chest cavity, through which I was easily able to introduce the whole of my right forefinger. The thickened and velvety character of both parietal and visceral layers of the pleura was thus easily felt. The day following the operation the patient's temperature remained elevated, but as the drainage from the cavity was in every way perfect, this persistent rise in temperature was, in all probability, due to the operation on the bones. From July 1st the case did marvellously well. The man's temperature remained normal, the drainage of the cavity was excellent, the discharge became less and less in quantity, and the patient began to increase rapidly in weight and was able to take out-door exercise. On August 15th he left the hospital and went back to his work on the railway. Five months later he was seen by Dr. Fullerton, who had relieved me at Quetta, when his condition was as follows:—He was stout and healthy in appearance, able to walk long distances, and do his daily work without any inconvenience. There was no breathlessness or other symptom in connexion with his chest. A small opening in the chest wall still existed, into which the blunt end of a probe could be passed for about one-third of an inch. From this opening a slight discharge comes, sufficient to just stain a piece of rag with which the man keeps the fistula closed.

Of the advantage of this method of treating empyemata there can, I think, be little doubt. By the removal of a piece or pieces of bone from the ribs a large permanent opening is made into the pleural cavity, and that cavity is thoroughly and completely drained. We may look upon such a cavity as being nothing more or less than a large abscess, the walls of which will continue discharging pus until the cavity becomes filled up with granulations. As the cavity becomes obliterated by this process of filling-up, the discharge will cease entirely, and the opening in the wall of the chest will close. This is the natural termination of such a case, and the cure is a complete one. There are many interesting points that might be considered with reference to the condition of the lung on the affected side, as well as that of the lung on the sound side, upon which an immense amount of extra work is thrown during the progress of the case. Of course cases of empyema treated by resection of a portion of rib will, when cured, present the usual flattening and falling in of the ribs on the affected side

[1] THE LANCET, Dec. 14th, 1889; on the Occurrence of Hæmorrhagic Nephritis in the Course of Suppurative Meningitis, by Drs. G. F. Crooke and E. N. Nason.

together with the curvature of the spinal column. But I cannot help thinking that as time goes on the tissue of the lung on the affected side undergoes some secondary developmental changes that lead to a considerable restoration of its useful powers.

Before concluding I would direct attention to a practical point in the management of these cases which I have found of considerable use. After the operation of resection of a rib for empyema, difficulty is not infrequently experienced in completely emptying the lower portion of the pleural cavity—i.e., that portion of it which lies below the level of the opening in the wall of the chest. To overcome this difficulty I have found it best to get the patient close to the edge of the bed in a sitting position on the right or left side, according to which pleural cavity is to be emptied, and then to instruct him to place his right or left hand palm downwards on to the ground and to gradually lower his head on to the back of his hand. By this means the lower part of the pleural cavity is raised and can be easily emptied when a tube had been introduced into it before resecting the rib. If the patient is weak and unable to raise himself, he can still be *gently placed* without danger into this position, with his head resting upon a pillow, on the ground. In the three cases of empyema I have treated by resection I have found this method of emptying the lower portion of the pleural cavity exceedingly useful.

Hyderabad, Deccan.

OBSERVATIONS ON THE ADMINISTRATION OF NITROUS OXIDE GAS.

BY PERCY EDGELOW, L.R.C.P. EDIN., M.R.C.S.,
ANÆSTHETIST TO THE NATIONAL DENTAL HOSPITAL.

IN offering the following remarks on the administration of nitrous oxide gas, it is with the belief that they appertain in some measure to its successful administration.

It may seem superfluous to premise that whatever form of apparatus be used it should be in sound working order. I have, however, in not a few instances observed a faultiness in the accuracy of the fittings of its component parts which interferes with the perfect administration of the gas. The improved pedal attachment which I devised prevents any waste of gas in addition to its other distinct advantages, as explained in THE LANCET of Dec. 13th, 1890. With regard to the bag, I prefer one capable of holding three gallons, and connected at one end with the pedal attachment (a silencer intervening) by a broad tube of about 30in. in length, and at the other end with the face-piece by a broad tube of about 25 in. in length. A distended bag connected immediately with the face-piece is to many patients a source of intimidation; whereas, with the intervention of some length of tubing, so as to let the bag rest well out of view of the patient, sensitive feelings are less aroused. The valves of the face-piece should be invariably tested prior to each administration. The margin of the face-piece should, in its entirety, be in contact with the face; upon their accurate coaptation greatly depends the absence of that feeling of extreme tension in the head, which usually ensues where less care is observed. The supplemental bag I entirely discard, and this for many reasons. I have failed to observe a longer period of unconsciousness from a to-and-fro breathing with it than from the inhalation of pure gas. I am convinced that a patient recovers from the effect of pure gas with less chance of unpleasant feelings, such as giddiness, headache, &c., than when the supplemental bag has been used. The anæsthesia produced with it is of a mixed nature, partly asphyxial, and only partly true nitrous oxide narcosis. Again, it is a most unhygienic arrangement. In view of the continual forward and backward breathing of all sorts and conditions of patients, this must necessarily be so, unless the interior of the bag be thoroughly cleansed after each administration, a proceeding very difficult to carry out. The only points that can possibly be urged in its favour are that it promotes an economy of gas, and that it can be utilised for obtaining anæsthesia when a full supply of gas is suddenly found wanting. This latter condition, however, can now be entirely discounted with the use of the improved pedal attachment. I am in the habit of observing the following rules in the operating room:—To reassure the patient of the practically absolute safety of the gas, and that the operation, whether it be a dental one, the incision of an abscess, the slitting up of a sinus, the extraction of a toe-nail, or other small operation, shall be perfectly painless. To refrain from any special physical examination of the patient. If the heart's action is very weak, as indicated by the pulse, or said to be diseased, I enjoin the recumbent position as far as the operation will permit. To be perfectly satisfied that breathing is quite free and unimpeded by any article of dress. To allow two or three inhalations of air to commence with. To count slowly from one to twenty during the administration, directing the patient to see how far he or she can follow me. To allow the operation, if dental, to commence only when stertor is well marked and jactitation *en évidence*. Should the case, however, be the single or multiple incisions of deep-seated suppuration, where forceps or director requires to be inserted, or scraping performed, the breaking down of joint adhesions, or other operations not involving the mouth or nose, I direct that the operation can begin at the onset of stertor, continuing the inhalation during the operation as far as may be necessary, only removing the face-piece should the breathing become greatly embarrassed. To keep the patient in the same position until complete sensibility has returned and giddiness has quite passed off. I frequently administer gas to the same patient twice or three times following, with an interval of one or two minutes, should there be no headache or continued giddiness between each administration. A few days ago I was giving gas to a powerfully built young gentleman with massive jaws. The dentist, a very dexterous extractor, was quite unable to move the right upper second molar tooth during a first and second administration of the gas, although anæsthesia was deeply induced. After waiting two minutes I gave it a third time, again very deeply, and on this occasion the tooth yielded, being a perfect specimen of a most difficult extraction, with three large and divergent roots. The patient recovered from the effect of the third inhalation as completely as from the first. With children I find it better to remove the face-piece almost immediately after the first signs of jactitation, as these so very often rapidly culminate in opisthotonos and other extreme convulsions of the body.

Old Burlington-street, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

UNIVERSITY COLLEGE HOSPITAL.

OLD-STANDING (? CONGENITAL) DISLOCATION OF PATELLA; REDUCTION OF PATELLA AFTER DIVIDING THE VASTUS EXTERNUS AND CHISELLING A NEW TROCHLEAR SURFACE ON THE FEMUR; RESTORATION OF FUNCTION OF THE LIMB.

(Under the care of Mr. BILTON POLLARD.)

WE publish this week the account of a patient recently shown at the Clinical Society by Mr. Pollard. The history of the case is unusual. There is the statement of weakness in the limb of some kind in early life, then the supervention of genu valgum on the same side, which it was necessary to correct by means of an operation (a deformity of limb so frequently found in patients who have sustained traumatic dislocation of this bone). From the condition of the external condyle as found at the operation it is probable that the displacement was due, in a large extent, to want of development of that part of the femur, an occasional cause, as we have already mentioned when previously writing of dislocations of the patella[1] which are not obviously due to severe injury. The other causes given are: sudden muscular contraction in patients the subject of knock-knee,[2] weakness, or shortening of the quadriceps

[1] THE LANCET, vol. ii. 1889, p. 1057.
[2] Erichsen, vol. i., p. 719.

extensor following infantile paralysis;[3] some mechanical cause acting during intra-uterine life; some congenital weakness of the part.[4] Previous relaxation of the ligaments of the joint is considered necessary by Professor Steubel.[5] Hamilton[6] says: "In some persons there appears to exist a preternatural laxity of the ligamentum patellæ or of the quadriceps extensor, which exposes the subject to this accident from a very slight cause. The operation performed by Mr. Pollard is, we believe, the first of the kind that has been done. The operations suggested or others performed for the remedying of the condition on failure of apparatus to correct the ill effects of the dislocation have been: 1. A lateral incision and the suturing of the inner edge of the bone to the tissues on the inner side of the joint, the patella having been pushed well inwards (Wright). 2. Removal of the patella (Fowler). 3. Osteotomy of the femur and the production of a condition of bow-leg (Davies-Colley). The operation, a severe one, has been most successful. The following description is from notes by Mr. Raymond Johnson, late surgical registrar.

The patient was a young woman aged twenty-one years, who had followed the occupation of a domestic servant. She could not fix the period at which her patella became displaced. The affected limb had been weak from childhood, but neither the patient nor her sister had noticed anything wrong with the knee. In December, 1885, she slipped and fell, but did not notice that anything had happened to her knee, and she was able to walk a distance of a quarter of a mile to her home. Since the accident she had walked lame. A few weeks later she was admitted to University College Hospital, under the care of Mr. Marcus Beck. She had well-marked genu valgum on the left side, and when she attempted to bend her knee the patella slipped down on the outer side of the external condyle of the femur.

On Jan. 28th, 1886, Mr. Beck performed Macewen's operation for genu valgum, which was completely and permanently corrected thereby, but the readiness with which the patella became displaced during flexion of the knee was in no way altered. The dislocation of the patella was the source of much pain, and the patient said that it incapacitated her from following her occupation. She was readmitted to the hospital in December, 1890, and during the Christmas vacation, owing to Mr. Beck's absence, she came under the care of Mr. Pollard. The left knee was smaller than the right one. When the limb was extended, the inner edge of the left patella projected more forwards than natural, and lay in about the mid-line of the limb. At a little distance internal to the inner border of the patella a ridge could be felt, which appeared to be the inner border of the trochlear surface of the femur. Between this ridge and the patella there was a slight groove. When the patient bent her knee the patella slipped down on the outer side of the external condyle of the femur, and no force could prevent the displacement as soon as a few degrees of flexion had been made. Flexion was painful, but was possible to a few degrees beyond a right angle. The width of the right patella was an inch and a half, and that of the left was three-eighths of an inch less.

On Dec. 30th Mr. Pollard operated as follows: The limb being rendered bloodless by means of Esmarch's bandage and tourniquet, and the skin being most carefully cleaned, an incision about two inches in length was made outside and above the patella, and the insertion of the vastus externus and the outer part of the capsule of the joint were freely divided, but it was still impossible to replace the patella or to prevent its slipping on the outer side of the condyle when the knee was bent. An incision about 3 in. long was now made a little internal to the inner border of the patella, and the joint was freely opened at this spot. The trochlear surface of the femur was found to be exceedingly small in all its dimensions. The groove was only broad enough to take the little finger, and the outer border of the groove prevented the replacement of the patella, which, even in the extended position of the limb, was found to rest on the external condyle, outside the trochlear surface. The cartilage and some of the bones were chiselled away until a sufficiently broad and deep trochlear surface was made. The patella could then be placed on the new articular surface, and during flexion and extension it slid downwards and upwards in a perfectly normal manner, the old tendency to external dislocation having quite disappeared. In order to secure the patella more safely in its new position, a strip of capsule about 1½ in. long and ⅜ in. wide in the middle was excised and the borders of the wound were sutured with silk. In this way the inner side of the capsule was braced up. During the operation the wound was constantly irrigated with a 1 in 4000 solution of perchloride of mercury. The inner skin wound was completely closed, but the outer, which was made to penetrate the joint at the lower part, was left open at this spot, in order to give vent to any effusion which might take place within the joint. No tube was employed. The knee was dressed with cyanide of mercury gauze and sal alembroth wool. The limb was fixed in a trough of Gooch's splint. The temperature reached 99·8° in the evening of the first day after the operation; it then gradually fell, and reached the normal on the fourth day. The patient had a good deal of pain in her knee on the day after the operation, but after the second day she was free from spontaneous pain. The dressing was changed on the eighth day after the operation. The discharge was dry. The knee was alternately passively flexed and extended. The movements caused much pain, and the patella was felt to grate against the bony surface of the new trochlear articular surface, but the patient was able to flex and extend her knee voluntarily. The patella showed no tendency to slip from its position. Passive movement was repeated on the thirteenth, fifteenth, and nineteenth days. The stitches were removed on the fifteenth day after the operation. On the twenty-first day the patient was allowed to get up, and on the twenty-eighth day she was able to walk down the ward. She went home on the thirty-second day after the operation. The patient was shown at the Clinical Society on April 24th. It was then four months after the operation. The movements at the knee-joint were free and painless; there was a little grating as the patella slid over the new trochlear surface. The patient said that her leg was stronger and more serviceable than before the operation. She had resumed her occupation as a domestic servant, and was able to scrub out four bedrooms and walk four miles in one day without any inconvenience to her knee.

[3] Malgaigne; also Pitts, Med. Soc. Trans., vol. xii.
[4] Wright and Ashby, Diseases of Children, p. 648, and others.
[5] Holmes' Surgery, p. 464.
[6] Fractures and Dislocations, p. 893.

JOHANNITER HOSPITAL, BEIRUT, SYRIA.

A RECORD OF SOME CASES INJECTED WITH TUBERCULINUM KOCHII.

(Under the care of Dr. H. GRAHAM.)

THE line of treatment followed has been that described by Professor Libbertz, the commencing injection in all cases of phthisis being 0·001 grm. The fluid was diluted with distilled and sterilised water, and the dilution raised to the boiling point each time after the patients had been injected before again closing the tube with cotton. The sputa were in every case examined before the patient was put under treatment, and the tubercle bacillus was found. The day after each injection the sputa were again examined in each case to see if any change had taken place. Each patient was carefully weighed once a week, and the weight recorded to determine whether there was gain or loss.

CASE 1.—E——, a carpenter aged twenty-two. His family history is good, and he himself is well built, but nervous-looking, with clear white skin, and hectic spots on his cheeks. He entered the hospital on Feb. 5th, complaining of cough, feverishness, and some emaciation, from which he had been suffering about two months, but up to that time had been in excellent health. He complained of weakness and loss of appetite, but had no night sweats. On the right apex there was dulness, increased vocal resonance, prolonged and roughened expiratory sound, and a few subcrepitant râles. A few bacilli were found in about half the cover glasses examined. The first injection was followed by a marked reaction, but in no case did his temperature rise higher than 39° C., so that the dose was rapidly raised, and on March 8th he was given 0·150 grm. without any reaction. The physical signs had cleared up and his cough with expectoration had ceased. He was discharged on March 9th, and since that time has been constantly under observation, and there have been no signs whatever of a return of his disease.

CASE 2.—M. S—— was admitted on Feb. 4th. She is twenty-two years of age, married, and has two children. Her father died of phthisis after four months' illness, and one sister died at the age of twenty-two from the same disease after three months' illness. The patient had been ailing for some two months before admission, suffering from cough and emaciation for one month. Her condition on admission to hospital was not good, as she was already much emaciated and suffered greatly from a high temperature, which was constantly between 38·5° C. and 39·5° C., and from night sweats. The physical signs, however, did not indicate more than an extensive consolidation of the left apex, and but few bacilli were found in her sputa. After the first injection the temperature rose to 40·1 C., but fell the next morning to 37·7° C., but soon rose again to 38·5° C. She was injected twice a week for one month, the bacilli constantly increasing in number, and her temperature always remaining very high. She lost weight rapidly, and was troubled much with a severe dry hacking cough, which could not be relieved. The physical signs during this month seemed to indicate no progress. The injections were discontinued when they had reached a dose of 0·018 grm. After the injections had been discontinued for about a week she seemed to grow worse even more rapidly than before, the physical signs indicating rapid destruction of the lungs. She was discharged on March 18th, and has since not been heard of.

CASE 3.—N. J——, aged eight, entered the hospital on Feb. 3rd. His father died of phthisis. A year ago Dr. Post had resected his elbow-joint for caries, but after some six months the disease had returned, and upon admission the elbow was much swollen and discharging from three sinuses. The wrist was also swollen and discharging. The apex of his right lung was consolidated to a considerable extent. He was weak and emaciated. After the first injection of 0·001 grm. his temperature rose to 40·7°C., but fell again the following day to normal. The injections were gradually increased until the beginning of April, when the dose of 0·05 grm. was given. The injections have always been accompanied by a very marked general reaction, and by but little local reaction. The swelling has gone almost completely from the elbow, and the discharge is very slight. Very few signs of consolidation of the right apex remain. He has increased in weight, and his general condition has improved very much. He has had no other treatment either medical or surgical. For the past week the improvement has not been marked, if there has been any, and his temperature, which always returned to the normal the day after the injection, now remains somewhat up for the second and even the third day.

CASE 4.—E. S——, aged eighteen, was admitted to the hospital on Feb. 8th. Her family history is good. She had been treated for phthisis at the Polyclinic for about a year. On admission she was suffering much from fever and night sweats. She had no appetite, was emaciated, and her feet were œdematous. Her voice was very husky, so that she could not make herself heard at any distance, and she had suffered from diarrhœa. By physical examination there were depression and limited motion of the upper part of the right chest, dulness on percussion, extending nearly to the base, increased vocal resonance, cavernous respiration just under the clavicle, and subcrepitant râles as low as the fourth rib in front. No signs were found on auscultation to account for the dulness reaching almost to the base. The left lung did not seem to be implicated. The expectorated matter was large in amount, and contained very many bacilli. The first injection was given on Feb. 9th, and was followed by a marked general and local reaction, as were all the succeeding ones. This patient constantly affirmed that when the injection was given on the diseased side the reaction was much greater than when the injection was made on the other. Within two weeks her night sweats had almost ceased, and her temperature between the injections was almost normal, but her throat was very much swollen, and she could only speak in a whisper. At the end of a month her voice was as good as ever, and the pain and swelling were completely gone. She increased in weight gradually for the first six weeks, her appetite and strength returning to a very marked degree. Her sputa were much less and contained very few bacilli, at times eight or ten cover glasses being examined without finding any. After eight weeks' treatment she seemed to remain at about a standstill, and was sent home. Since then she has been under observation, and has grown no worse. Her condition, as shown by general symptoms and local signs, is, beyond a doubt, very much improved, and as she has not ceased to react improvement may still be expected. The physical signs in this case have been very much changed, there being now no cavernous respiration, and but few subcrepitant râles. The dulness on percussion has been unaffected.

CASE 5.—W. A——, aged twenty-two, was admitted to the hospital on Feb. 20th, 1891. One brother died of phthisis. On admission he had been ailing for a year and had had a cough, which increased very much when winter came on. One month previously he was attacked with severe vomiting and nausea, so that he was unable to take any solid food whatever for a week. He was much emaciated and his temperature was 39° C.; a rise in temperature which was followed by an exhaustive colliquative sweat. On physical examination the following were found: Flattening and sinking of the right apex, subcrepitant râles as low as the third rib in front, tubular respiration just below the clavicle, and dulness on percussion. The first injection was followed by a moderate reaction, and he was given the lymph twice a week in gradually increasing doses. There has been a gradual improvement in his general condition, with an increase in weight. He has, however, been kept back by a very severe dry cough, which has not been relieved by treatment. It is always worse for a day or two after an injection. The bacilli have never been abundant, and lately have not been found. The physical signs of disease have largely disappeared.

CASE 6.—N. S——, aged twenty-two, entered the hospital on Feb. 20th. His mother died of phthisis, and he has a sister who is now suffering from the disease, which in his case has been of fully a year and a half's standing. He suffered from night sweats and diarrhœa, but at the time of entrance his temperature was about normal, and he was in a fairly comfortable condition as far as symptoms were concerned. There were signs of a cavity at the upper and back part of the right lung and consolidation of the upper part of the left. He expectorated a great deal of purulent mucus, full of bacilli. His first injection was given on Feb. 21st, and the last one up to date was 0·08 grm. He has made constant improvement, gaining in appetite, strength, and weight. His night sweats have ceased, and he has not at any time had a return of his diarrhœa. At the present time he spits very little purulent matter, but a great deal of frothy mucus. He gradually increased in weight up to the fifth week, then lost somewhat, and has remained stationary as regards weight for the past week (April 8th). The physical signs, however, have shown a better condition of the lungs, with a diminution in the size of the cavity and a disappearance of late of the subcrepitant râles during the intervals between reactions. He has had cod-liver oil and tonic treatment in addition.

Remarks by Dr. GRAHAM.—The treatment was begun early in Case 1, and as nearly as I can tell the patient has been completely cured. In addition to the injections, he had quinine, iron, and arsenic, with a sedative expectorant mixture. Among the cases of phthisis which have been reported, and others under treatment for a shorter length of time, in almost all the treatment has at first been followed by a very marked improvement in the local symptoms and general condition. After the patient has undergone treatment for from six weeks to two months the remedy does not produce so prompt a reaction, and the patient seems to remain at a standstill. He has undoubtedly been improved, but not completely cured, and it seems as though he would easily go back to his old condition. The injections were in no case accompanied by any untoward symptoms, nor has an abscess in any case followed. It was noticed that usually after the patient had undergone treatment for a week or two the number of bacilli was increased, and at the end of a month they were reduced in number very markedly. It has been noticed also that the sputa after a month's treatment were apt to become very thick, streaked with or tinged by blood, and to contain much fibrinous material, which coagulated on the cover glasses in the form of an exceedingly fine dense network. These dense sputa were accompanied by a large amount of light frothy mucus. The following two cases of lupus are the only completed ones. Both were bad cases to treat, as they had lasted a long time, and were of a very severe type. It would be unfair to draw conclusions against the lymph from such unfavourable cases.

CASE 1.—The patient was sixty-five years of age, and the

ulcer was of about three years' standing. He had been admitted to the hospital on July 10th, 1890, and during his long stay had had the ulcer cauterised weekly with caustic potash. His left eye was completely gone, the ulcer encroaching on the eyebrow at one margin, and on his mouth at the other. There was a hole through into the posterior nares large enough to allow of the passage of the index finger. He was pale, weak, and anæmic, and had suffered much from the pain. He was given the first injection of 0·010 grm. on Feb. 6th. This produced some reaction, local and general, his temperature rising to 38·4° C. The dose was gradually increased, and on March 3rd he was given 0·3 grm. For the first two weeks the ulcer appeared to be cicatrising, but then it seemed no better for a week, and when the injections were withheld it went gradually back to its old condition. To ascertain whether the ulcer might be an epitheliomatous one, a portion was removed from the margin of the growth, fine sections were cut from it with a Schause microtome, and, having been stained according to Gram's method, in several of them a few tubercle bacilli were found. The patient was again injected after this with 0·4 grm.; but no reaction having followed, he was discharged in even a worse condition than he was before the treatment was begun. Twice after large injections this patient was unable to get out of bed except with great difficulty, complaining of stiffness all through his body.

CASE 2.—A woman, thirty-five years of age, from the desert, with lupus exedens of four years' standing. The eye was gone and a portion of the nose, and the ulcer, which was about four inches in diameter, extended deeply into the orbit. She had been under treatment in the hospital for eight months, and had improved somewhat. The first injection of 0·01 grm. was given on Feb. 6th, and in all she received twenty-two, the maximum being 0·3 grm. The ulcer began to cicatrise after the first injection, there being marked local reaction, although almost no general, and continued for about six weeks to skin over, until fully three-fourths of the ulcer was covered. Then the reaction ceased to follow the injection, and no more improvement took place. In fact, the ulcer seemed to be enlarging again. The woman refused to stay in the hospital any longer, and has not been seen since.

The following cases were injected without producing any reaction: (1) A young man suffering from mitral regurgitation, with signs of brown induration, dose 0·01 grm.; (2) a case of chronic pneumonia following measles, dose 0·01 grm.; (3) a little girl with swollen glands of the neck and axilla, dose 0·007 grm.; (4) three cases of disease of joints, evidently non-tuberculous, dose in each case 0·008 grm.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

The Changes in Healthy Arteries and in Tendon Ligatures during the first four weeks after Ligation.

AN ordinary meeting of this Society was held on May 26th, the President, Mr. TIMOTHY HOLMES, being in the chair.

Dr. SHERIDAN DELÉPINE and Mr. C. T. DENT read a paper on the Changes observed in Healthy Arteries and in Tendon Ligatures during the first four weeks after ligation. The authors first explained the origin of the paper. They gave a detailed account of the state of healthy arteries five, nine, thirteen, seventeen, twenty, and twenty-three days after ligation in their continuity. They summed up these results as follows:—1. (*a*) When a healthy artery was tightly tied in its continuity and the ligature was sufficiently applied, a permanent obstruction was invariably obtained, whether a clot formed or not, and whether the point of ligation was near a collateral branch or not. (*b*) Up to the fifth day the proximal end of the occluded artery was gradually filled up with coagulated blood, which by the fifth day formed a plug composed of clots of various ages. Through the unequal shrinking of the various clots channels were produced, chiefly at the periphery of the thrombus, and into the crevices thus formed fresh blood penetrated. Thus a "spurious circulation" was established. (*c*) From the fifth to the thirteenth day the proliferating elements of the intima penetrated into the sides of the clot and bridged over its surface. By the thirteenth day tracts of young fibrous tissue extended all through the clot, and a thick layer of flattened cells, continuous with the intima, covered the proximal surface of the clot. (*d*) The remains of the clot were gradually absorbed, and by the thirteenth day only a few scattered masses of pigment indicated the previous existence of the thrombus. As the absorption went on the plug shrank, and ultimately its surface became concave. (*e*) While these changes were going on within the vessel, similar processes occurred in the exudation surrounding the ligature outside the artery. Embryonic vessels formed in this region as well as in the artery. At first these embryonic vessels were simply solid columns or tracts of spindle cells, and were therefore only "potential vessels." (*f*) By the twenty-third day both the extra-arterial and intra-arterial new vessels began to extend through the degenerated muscularis close to the seat of the ligature. Inosculation of the new vessels took place, followed by canalisation, and thus true circulation was able to take place through the new set of true vessels. (*g*) The ligature during the whole of this time underwent slow absorption, and was gradually replaced by young connective tissue. 2. From these results the following inferences were drawn: (*a*) That tight ligation of healthy arteries resulted in sound and permanent obstruction within two weeks; (*b*) that tight ligation with flat tendon ligature did not injure the fibrous coat of the artery, even though it were applied with sufficient force to cause complete rupture of both internal coats; (*c*) that the obstruction of the vessel by young fibrous tissue, replacing the clot, was complete long before the flat tendon ligature showed any sign of being absorbed or of giving way. 3. (*a*) The use of tendon was advocated, because this material was very uniform in structure and because the shape presented certain advantages; (*b*) tight ligation was advisable, because it gave results which were constant, and which were speedily and with certainty obtained. 4. The use of the loose ligature was deprecated, and in criticising that method allusion was chiefly made to Messrs. Ballance and Edmunds's paper, on account of its being one of the most recent and important contributions to the subject. Loose ligation should be avoided because (*a*) the method did not give constant results; (*b*) it did not give the same results as tight ligation within the same time; (*c*) it did not offer any advantages whatever as regards the operative procedure, and, if anything, was more troublesome to carry out than the recognised method. 5. In conclusion, the authors discussed the question briefly from the clinical point of view, and stated their conviction that the results of their investigation were supported by practical experience. They considered that tight ligation was the method least likely to lead to injurious consequences to the ligatured vessel, and most likely to bring about the effects which it was commonly desired to obtain by the operation.

The PRESIDENT said that he had devoted a good deal of thought to this subject, at which he had also worked practically, though not by modern microscopical methods. He had come to the conclusion that it was safer and easier for the surgeon, as well as more prudent for the patient, to have the vessel tied with such an amount of force as to divide its inner coat. This incurred no extra danger, and one was sure of producing a permanent obliteration of the lumen of the vessel. In the history of many of the cases of arterial ligature which had done badly the cause was found to be due to a too early establishment of free circulation through the weakened vessel; the danger was a practical one, and was greater than the theoretical benefit from the avoidance of rupture of the internal coat. John Hunter, when he first tied an artery in St. George's Hospital nearly 130 years ago, used three or four flat tapes in order to obliterate the vessel without division, and some surgeons at the present day were inclined to imitate this loose ligature. He thought that at the present time a sufficient amount of practical evidence had been collected to say that those surgeons who had used the tight ligatures had not been less successful than those who had employed the occlusion method.

Mr. MACNAMARA agreed that the tight ligature gave the greatest chance of recovery to the patient. He had ligatured the common carotid, the external iliac, and the common femoral recently with a good result. He used silk ligatures which had been previously boiled in carbolic acid. The tissues around the artery were disturbed as little as possible in the application of the ligature; no blood-clot was left in the wound, deep sutures as well as superficial

were inserted, and the part was kept at rest for a considerable time afterwards. Silk was as safe or safer than tendon, for there was no chance of the ligature expanding or giving way. He objected to the chromicised ligature, which remained for a long time in the wound, and, on the whole, his experience of it was not favourable.

Mr. BALLANCE, after complimenting the authors on their elaborate and careful paper, said that he had studied the subject for many years, and had performed a very large number of experiments. The minute changes which had been described were identical with those which he had found, and which he had narrated in his lectures at the Royal College of Surgeons. After 132 days a tendon ligature was not entirely absorbed in the region of the knot. Encapsulation of the ligature invariably occurred in aseptic wounds, and, though an antecedent to absorption, was no bar to it. The multiplication of the endothelium he regarded as due to an alteration of nutrition. He hoped that the profession would suspend their judgment on this question till the whole of the recent work of himself and Dr. Edmunds was before them.

Mr. SPENCER WATSON said that the experiments which had been narrated had been performed on healthy arteries; but surgeons were often called on to deal with atheromatous vessels when perhaps a loose ligature would be safer.

Dr. DELÉPINE, in reply, said that the experiments of Mr. Ballance and Dr. Edmunds had been taken as a type of the action of the loose ligature. The experiments described in the paper were opposed to these, and he held that they proved the points which had been laid down.

Mr. DENT, in reply, said that the tendon remaining in the wound a long time was not an objection to its use. It was smoother and more homogeneous than silk, and was therefore better suited for the purpose of ligature. His conclusions were not drawn merely from the six experiments related: he had worked at the subject for a number of years, and had given an attentive study to all that had been published. By the term "loose ligature" he understood one which approximated the walls and occluded the lumen of the vessel without rupture of the inner coat. The experiments of Jones, which had been referred to, were not to be compared with those under discussion, for they were probably septic ligatures used in a wound which was allowed to become septic also.

CLINICAL SOCIETY OF LONDON.

Congenital Cranial Synostosis.—Modified Stephen Smith's Amputation.—Fæcal Fistula.—Congenital Scrofula.—Hereditary Muscular Spasm.—Scoliosis.—Typhoid Fever with Arterial Thrombosis and Mania.—Leucocythæmia.—Pulmonary Embolism.

THE last ordinary meeting of this Society for the present session took place on May 22nd, Sir Dyce Duckworth, President, in the chair.

Dr. CALVERT showed a case of Congenital Cranial Synostosis in a child aged fifteen weeks. The bony union was firmest in the region of junction of the coronal and sagittal sutures.

Mr. BRUCE CLARKE showed a man on whom he had performed a new method of Amputation just below the Knee-joint. The procedure was a modification of Stephen Smith's method, a small portion of the head of the tibia being left and the knee-joint not being opened. The amputation wound was a very small one, and the gastrocnemius was practically the only muscle cut.

Mr. W. H. BATTLE exhibited a case of Fæcal Abscess after operation. The patient was a girl aged eighteen, who had come under his notice at the Royal Free Hospital, with a fæcal discharge at the umbilicus which had been going on for seven years and was believed to have commenced after an attack of typhoid fever. The patient was in a hectic condition, and was passing solid fæces as well as pus from the fistula. Exploration showed it to be connected with the sigmoid flexure and to communicate with an abscess which occupied the lower part of the peritoneal cavity behind the abdominal wall. Plastic operations on the gut having failed to close the fistula, he cut it across and brought out both ends at the abdominal opening. The girl was now practically in the condition of a patient after inguinal colotomy. The parents would not consent to a further operation for closure of the fistula.

Mr. HURRY FENWICK showed a man whose left testicle had been removed for tubercular disease; the right organ exhibited evidence of the same affection, and a large tubercular deposit had been scraped away from the prostate. His wife had recently given birth to a child which presented large cheesy swellings at the nape of the neck, the elbow, and the knee. He recorded it, as cases of congenital scrofula were extremely rare.

Dr. BOLTON TOMSON (introduced by Dr. Savill) showed a case of Hereditary Muscular Spasm. There was loss of power in the hands and face as a result of cold, and muscular exertion would also bring on spasm. The affection had been transmitted to the third and fourth generations.

Mr. BRODHURST showed a girl affected with Scoliosis with Rotation, who had been under his treatment for ten years. She had been made to recline, and pressure had been applied to the convexity of the curve by means of an instrumental support, the pressure being gradually increased from below upwards. The result was very satisfactory.

Dr. SIDNEY PHILLIPS related a case of Typhoid Fever with occlusion of the femoral artery during convalescence, and with acute maniacal attacks. The patient was an adult male, and the attack was a mild one, but the heart's action weak and irregular from the first. During convalescence sudden pyrexial attacks occurred. The first rise was to 103°, with sudden pain in the right hypochondrium; the second to 103·4°, and the left common femoral artery became blocked, with absence of pulsation in it and in the popliteal and tibial arteries. Retention of urine occurred at the same time. The limb became powerless, with slight anæsthesia. There was slight œdema of leg and foot, and the affected limb became hotter than its fellow. The surface thermometer showed on one day a difference of five degrees. The rise of temperature lasted three weeks. Pulsation gradually recurred in the limb, which completely recovered. In the third attack of pyrexia the temperature rose to 103·2°, subsiding with epistaxis. The fourth, fifth, and sixth attacks of fever were accompanied by outbreaks of excitement, almost of acute mania, and in one the temperature rose to 106·1°. The patient eventually became quite well. Dr. Sidney Phillips said the plugging of the artery might have been from thrombosis or from embolism, probably the latter; such plugging of the large arteries was not very common as a sequela of fevers, and frequently led to gangrene, as in the case lately recorded in THE LANCET by Dr. Drewitt. A rise of temperature in the affected limb after occlusion of the main artery was not usual, and even if the ordinary collateral circulation were sufficient to the temperature of the part up to the normal, it could not be credited with raising the temperature above the normal. It seemed probable that the shock of the embolism led to a reflex paralysis of the spinal centre, producing retention of urine, and the same shock in the same way led to a paralysis of the vaso-motor constricting nerves of the arteries of the lower limb, allowing an unusual hyperæmia. Dr. Gaskell had shown that these nerves originated in the anterior cornua of the spinal cord, and passed out in the anterior nerve roots to the sciatic plexus. Anything, therefore, which would produce a paralysing influence on the spiral centres for the bladder might also paralyse the centres of origin or the vaso-motor nerves to the arteries of the leg. Referring to the maniacal attacks, Dr. Phillips observed it was not common to get such attacks as immediate sequelæ of fever, with such rises of temperature the patient being quite calm and the temperature normal in the intervals. Possibly they were embolic in origin, but more probably were only signs of functional nerve disturbance in an emotional individual.—The PRESIDENT inquired if there were any family history of insanity, if the superficial veins were enlarged, and if headache were complained of when the maniacal attacks began.—Dr. HALE WHITE suggested that the condition of the limb might be due to thrombosis of the femoral vein, which again might press somewhat on the artery. It would explain the œdema and great heat of the limb, and it was a much commoner complication.—Dr. PHILLIPS, in reply, said there was no family history of insanity, there was slight enlargement of the superficial veins, and the patient did not complain of headache. He was convinced that the artery was blocked, though the vein might have been thrombosed also.

Dr. ORD and Dr. COPEMAN described a case of Leucocythæmia which had been under observation nearly three years. The patient, a schoolmaster, aged thirty-six, was first seen on May 5th, 1888, and was under almost continual

observation until the time of his death on Jan. 19th, 1891. When first examined the spleen occupied the whole of the left side of the abdomen, and in the umbilical and hypogastric region passed to the right of the middle line. The organ was firm and the outline well defined. The patient had first noticed general enlargement of the abdomen towards the end of 1886, and attributed the splenic enlargement to a fall early in 1887. There had been no sickness or diarrhœa, no loss of appetite, no emaciation. He complained of gradually increasing weakness, palpitation, vertigo, and bleeding from the nose and gums. While under observation the spleen gradually increased in size, but not continuously, exertion or excitement causing rapid enlargement, rest in bed, diminution in bulk. When last admitted in December, 1890, the organ extended from the seventh rib in the axillary line to Poupart's ligament, and at least 2 in. to the right of the middle line at the level of the umbilicus. There was at no time any evidence of peritoneal inflammation, but the spleen became tender after exertion. The liver also underwent steady enlargement, at first firm, afterwards softer in character, but without pain or tenderness. There was slight but gradually increasing ascites. The accessory symptoms were few; he suffered severely from headache; he had from time to time hæmorrhages from the nose and gums, and retinal hæmorrhages were also observed. There was no marked variation in temperature. There was a variable presence of albumen in the urine. He was treated by rest, feeding, and the administration of hypophosphite of soda and arsenic. At the post-mortem examination, made thirty hours after death, the spleen was found, large, firm, and smooth, 7½ lb. in weight, occupying the whole of the left hypochondriac and iliac regions. The liver was enormously enlarged and very friable; the kidneys were enlarged, pale and firm. No enlargement of any gland was found. The blood was everywhere of the consistence of thick chocolate, and there was no coagulation. The points of interest were—first, the duration of the disease, which certainly went as far back as 1886; second, the comparative absence of complications; third, the beneficial effect of arsenic in the treatment. Examination of the blood by Dr. S. M. Copeman was frequently done while patient was in hospital. It was always more opaque than usual, due to the presence of an unusually large number of white corpuscles, for the most part granular in appearance, and presenting no amœboid movements. The proportion between the white and red corpuscles at various observations varied between 1 to 8 and 1 to 4. There were three varieties of white corpuscles recognised—one of normal size, which stained deeply with methylene blue; one three times as large, not staining so deeply with that reagent; and a third about half as large again as an ordinary leucocyte, resembling cells found by Dr. Sherrington in the blood in cholera. The red corpuscles occasionally showed a tendency to the formation of rouleaux, but at times this was altogether absent. Nucleated red corpuscles were found from time to time, and blood platelets were as a rule present in increased numbers. On standing, the red corpuscles rapidly broke down, and the hæmoglobin first underwent reduction, and then, under favourable circumstances, appeared as rectangular crystalline plates. The latter phenomena disappeared when the patient was under the influence of arsenic. The amount of hæmoglobin in the blood was reduced to between 51 per cent. and 32 per cent. of normal, these figures giving the highest and lowest records. Colourless oblong crystals, such as have been described by Charcot, were sometimes found in the blood after standing. These were also found in large numbers in the blood obtained post mortem. The specific gravity of the blood was considerably lowered, the last recorded observation being 1043·5.—Dr. WILBERFORCE SMITH asked what doses of arsenic were given and whether it was found necessary to increase them.—The PRESIDENT inquired if it had been considered desirable to perform transfusion.—Dr. FREDERICK TAYLOR remembered a good many cases which had lasted more than two years; in the case of a boy who was a servant of his own the duration was nearly three years. He asked what was the condition of the patient as to pallor. Was he persistently pale? He had seen many cases in which the anæmic condition was not apparent in the face to the degree that one would expect.—Dr. ORD, in reply, said he had used liq. arsenicalis in doses of from five to ten minims three times daily after food, alone or given with hypophosphite of sodium. It had never given any discomfort. The patient was looking poorly nourished, but was not markedly pallid.—Dr. COPEMAN remarked on the presence in the blood of corpuscles which stained blue and contained purple granules. Mr. Hankin had seen similar bodies in the blood of animals poisoned with anthrax, and Dr. Sherrington had found them in the blood of cholera patients. It was possible they might represent some antagonism between the organism and the poison with which it had been dosed.

Dr. LEONARD REMFRY read notes of a case of Pulmonary Embolism. The patient was admitted with abdominal tumour and commencing intestinal obstruction. After a few days the obstruction was complete. The tumour was aspirated per vaginam, and found to be a hæmatocele. An incision was made, and the cavity washed out and a drainage-tube inserted. Irrigation daily. Rapid relief of symptoms and steady convalescence. The last morning on which the douche was used the patient was suddenly taken with intense dyspnœa and cyanosis. The breathing became weaker and weaker, and finally ceased. Artificial respiration was kept up for three hours, followed by administration of oxygen. There was rapid improvement under the latter. The corneal reflex was absent three hours and a half. Consciousness was very gradually recovered. Paroxysms of dyspnœa and cyanosis occurred at intervals for twenty-four hours. There was deficient expansion of the chest, and pain referred to the right side; crepitations, and afterwards tubular breathing in right lung. The patient gradually but completely recovered. There were six reasons for considering the case to have been one of pulmonary embolism: (1) The suddenness of the attack; (2) the tumultuous breathing, followed by sighing respirations, and finally cessation of breathing; (3) the rapidly developed cyanosis, which disappeared only after forty-eight hours; (4) the occurrence subsequently of localised pneumonia in a small area of the middle of the right lung; (5) the inferior expansion of right side of chest, which was noticed directly after the attack; (6) the occurrence of attack after manipulations which might easily dislodge a clot.

Reviews and Notices of Books.

A Dictionary of Applied Chemistry. By T. E. THORPE, B.Sc. Vict., Ph.D., F.R.S., Treas. C.S., Professor of Chemistry in the Royal College of Science, London. Assisted by Eminent Contributors. Vol. II. London: Longmans & Co. 1891.

IT will be remembered that when a new edition of Watt's "Dictionary of Chemistry" was required the publishers decided to divide the work into two distinct books, one in four volumes being devoted to pure, and the other in three volumes to applied, chemistry. The editors of the first part are Dr. Forster Morley and Mr. Pattison Muir of Cambridge, and they have already issued two volumes of the highest scientific value. Professor Thorpe undertook the technical dictionary, and although he started later, his second volume is now before us. He has frankly admitted that his work overlaps its companion to some extent, but this will readily be pardoned in consideration of the greater completeness which is thereby gained. Few who are seriously interested in chemistry will be satisfied without having both dictionaries on their shelves. Each is in its way a treasure.

Of the present volume about one-fourth has been written by the editor and the rest by a staff of thirty-three contributors, all eminent in one or more branches of applied chemistry. The great mass of the shorter as well as some of the longer articles have been supplied by the editor, whose untiring industry and extensive knowledge are quite as manifest in this volume as in the first. Many of them are models of condensation, and if we sometimes find ourselves wishing for more details it is only necessary to remember that the book had to be completed in three instead of in thirty volumes. As examples of Professor Thorpe's style we may quote the articles on Ethyl Compounds, Fluorine, Manganese, Mercury, Milk, and Nitrogen. The recent history of fluorine is to the scientific reader not only in-

teresting, but exciting. The extreme activity of the element, the nature of which was first indicated by Ampère in 1810, received early recognition, and countless attempts to isolate it were made. But it resisted all assaults and seemed almost to realise the old alchemical dream of a universal solvent which no bottle could retain. Some investigators—notably, Mr. George Gore of Birmingham—nearly succeeded in the difficult task, but it was reserved for M. Moissan to produce the pure element by the electrolysis of hydrofluoric acid, to which a little hydrogen potassium fluoride had been added. The potassium salt gave the necessary conductivity to the liquid, and fluorine was obtained as a colourless gas, with all the electronegative energy which had in anticipation been assigned to it. The method for its preparation is here fully described and illustrated by diagrams.

In the articles contributed by other chemists a certain inequality may of course be recognised, although each writer has evidently done his best. Many have but a remote bearing on medical science, as, for example, Mr. Turner's essay on Iron, and Mr. Bedson's on Lead; but, on the other hand, many have the highest interest for, and will be essential to, our readers. Taking merely their titles, we may refer to Glycerine, by the late Mr. Lant Carpenter; Maltose, by Mr. O'Sullivan; no less than twenty-five short articles by Dr. Senier on Drugs; and, above all, a most excellent article on Fermentation by Professor Percy Frankland, who, with the assistance of his accomplished wife, has lately added so much to our knowledge of the subject. In addition to the yeast fermentation to which the name was originally applied, dozens of more or less analogous processes are now recognised. We have not only formed or organised and unformed or soluble ferments, but also an indefinite number of ferments of oxidation and reduction. All of these are classified and their conditions indicated with great lucidity, and many practical directions for the cultivation of organisms and their microscopic detection are given. Nitrification and denitrification are slightly noticed, as they are more fully discussed, the former especially, in a separate article by Mr. Warrington.

Professor Thorpe must be congratulated not only on the excellence of his work, but on the rapidity with which it is being accomplished.

Medical Symbolism in connexion with Historical Studies in the Arts of Healing and Hygiene. By THOMAS S. SOZINSKEY, M.D., Ph.D. Philadelphia and London: F. A. Davis.

THIS is a volume of no little interest to medical men, who, however ready they may be in attaching significance to signs and symptoms of disease, are frequently at a loss to explain those allegorical figures and symbols which from prehistoric times have been associated with the healing art. Symbolism has been defined as crystallised mythology, but many symbols could be mentioned which have never had anything to do with mythology. It was a pictorial method of appealing to a rude and untutored people, and of conveying by the law of association more vivid impressions of abstract ideas. In the volume before us we have an admirable and successful attempt to set forth in order those medical symbols which have come down to us, and to explain on historical grounds their significance. An astonishing amount of information is contained within the covers of the book, and every page of the work bears token of the painstaking genius and erudite mind of the now unhappily deceased author. We cannot do more than hint at some of the many interesting subjects dealt with in the book. With remarkable clearness the author points out that these symbols, significant as they were of the onset or cure of disease, in many cases consisted of the figure of the deity to whom the origin of the disease was ascribed, or of some one of his attributes. Hippocrates expressed the popular belief in the words, "Men regarded the nature of disease and its cause as divine, from ignorance and wonder." The sun god, Apollo, or Phœbus, or Peon, was regarded as a personification of the healing powers of nature. In mythology he is represented as with Coronis, a Thessalian virgin, becoming the father of Æsculapius, with whose name so much of medical symbolism is attached. Coronis was slain by Artemis, the Goddess of Chastity, Æsculapius, like most of the ancient heroes, being rescued as was Macduff, and afterwards suckled by a she goat. Under the care of Chiron, "the sire of pharmacy," he became a master in the healing art; and so few of his patients died, that he excited the envy of Pluto, and was killed by Jupiter on account of the perfection to which he brought the medical profession. His two sons, Machaon and Podalirius, and more especially his daughters Hygeia, Panacea, Jaso, and Ægle, also form fruitful subjects of medical symbolism. On the various statues of Æsculapius are to be found, in consonance with ancient custom, the attributes of the god. There are the Æsculapian staff and serpent, frequently confounded with the caduceus of Hermes, which is adorned with two serpents in the posture of generation. The author remarks that the association of Hermes or of his caduceus with the art of medicine was not complimentary to the physician, as Hermes, being an expert thief, was classed as the God of Rogues. It was his function "to draw the souls from hollow graves" and "drive them down the Stygian waves,' which the author submits is scarcely a part of the physician's function. The meaning of the staff and serpent has given rise to much controversy, as also the significance of the bunch of herbs, the wreath of laurel, the bowl, the scroll, and more curiously the dog, the cock, and the goat which are associated with the god. How few medical men, for instance, could explain why the dog days (July 22nd to Aug. 23rd) were called the physician's holiday, or with what subjects of anatomy, pathology, and therapeutics the Hermetic medical works dealt.

The chapter on Egyptian Medicine will perhaps show how far progress has been made in preventive or State medicine since Moses enunciated his methods of dealing with contagious diseases, which the writer claims to be "far in advance of our practice of to-day." The explanation of the symbol of the pine cone will afford proof that the medical virtues of the fir tree were not by any means discovered during the present century, as some would have us suppose. The chapter headed "Dibbara, the God of Pestilence," is most interesting. It explains and illustrates how every race has ascribed the causation of epidemic diseases to the incensed feelings of a god. "He that sinneth in the sight of his Maker shall fall into the hands of the physician," says the author of Ecclesiasticus; although nowadays it is usual to adopt the view of Hippocrates, who combats this superstition in the words, "I do not count it a worthy opinion to hold that the body of man is polluted by God," and to ascribe epidemic diseases to other agencies than evil spirits, the pestilence that walketh in darkness, or the destroying angel. This subject is treated of in an able and instructive style; and the author proceeds to describe the medical charms and amulets which were formerly, and by many classes of persons are even now, regarded as possessing mysterious powers of removing evil influences and of curing diseases. Among these he refers to adder stones, blessed objects, relics, numeral letters, and certain colours, especially red. To this day a red string is occasionally seen around the necks of children, to protect them from scarlet fever, and the belief in the special virtue of red flannel is almost universal. Edward II., when suffering from small-pox, ordered his bed and his attendants to be "all n scarlet," and imputes "ye cure in great measure to ye virtue of ye colour.' Letters of the

alphabet, touch pieces, issued first by Henry VII. to persons "touched for the evil," the medicine bag of the North American Indians, all have been used as a means of mitigating disease. The author insinuates that, as in ancient and less enlightened times, the superstition which even now exists in the land would still lead Puck, the fairy's messenger, if he could see the "fond pageants" of modern mortals of even an advanced type, when dealing with agencies for the prevention and cure of disease, to exclaim with astonishment, "Lord! what fools these mortals be!"

The personal signs and symbols connected with the profession of medicine—the barber's pole, the yellow flag, the peculiar mode of travelling, the gold-headed cane—are all dealt with, and will afford interest to curious readers.

It has been put forth as a matter of regret that at the present time there is nothing about the dress of the physician symbolic of his calling; and recently recommendations have been made on the subject. The following are the items of the dress worn by Dr. Henry Revell Reynolds, one of the physicians of George III.: "a well-powdered, three-tailed wig, a silk coat, breeches, stockings, buckled shoes, and lace ruffles." "The wig," says Jeaffreson, "gave profound learning and wise thought to lads just out of their teens," and the author of "Medical Symbolism" slyly remarks, "If this were the case, it should be coaxed into use again." We heartily recommend this volume as a work of great literary skill, and deeply regret that the young and able author has not been spared to add still more to a class of literature replete with information of a most attractive and useful kind. The volume, "containing as it does," to quote the words of the biographer of the deceased author, "so much that is unique, and in a field not often touched by previous writers, 'Medical Symbolism' is sure to find appreciative readers not only among the fraternity to which Dr. Sozinskey belonged, but among scientific and literary circles generally."

The River Irwell and its Tributaries. A Monograph on River Pollution. By G. E. and A. R. DAVIS. Manchester: J. Heywood. 1890. Pp. 96. With Sketch Map.

THIS work consists of forty-six tables, giving somewhat full analyses of the waters of the several rivers near their sources, and at selected points in their courses at drought, normal, high-water, and storm-flow, with remarks on the nature of the pollutions and the methods of analysis, which must obviously differ in their details from those employed in the examination of potable waters. The state of the Irwell, without exception, unless the Calder be one, the foulest river in the land, is at once the product and shame of our boasted civilisation, and this picture of the river as it is, is the more opportune seeing that the Manchester Ship Canal with its succession of locks and basins will convert what is at best a running sewer into a series of cesspools. To call these rivers "sewers" is, however, mere flattery, since some of them are incomparably fouler than the sewers of Leeds, Sheffield, or Salford itself, while the Thames at London Bridge is relatively a crystal stream. Some of the figures—e.g., 294 grains per gallon of soluble solids and 33 of chlorine yielded by Tottington brook in drought—are enough to take away one's breath, and one is almost driven to the conclusion that the waters are too foul for the growth of pathogenic organisms or that these are destroyed by the putrefactive organisms. But unless compulsion can be brought to bear there is little hope for improvement, since the members of the local sanitary (?) authorities are themselves the chief offenders. It is high time that the Local Government Board assumed the right of indicating the best, or a few of the "best possible means" of purifying factory wastes and enforced their adoption; for Messrs. Davis maintain, and very properly too, that efficient processes are known for almost all circumstances. For example, the poison evaporator in many paper works pays its cost within a year by the recovery of the soda alone, and we know that the grease from wool is the source of so profitable a product as lanoline. We shall await with interest their promised work on these matters. We are, however, not a little surprised that such experts should refer to the recommendation of the commissioners as to an authority, for it is obvious that the proportion that the volume of an effluent bears to that of the river is more important than its actual composition, and that it is always possible to bring the work below the specified concentration by diluting it with water taken from the river to which it is to be returned, thus complying with the letter while violating the intention of the recommendation. The only true standard would be the relative purity of the stream above and below the point of discharge. We note, too, the misuse of the term "watershed" for basin or drainage area; watershed = German *Wasserscheide*, being properly the *parting* of the surface and subsoil waters in opposite directions, or line of demarcation between two river basins.

New Invention.

NEW CHLORIDE OF AMMONIUM INHALER.

THERE are in the market many inhalers by which the fumes of ammonium chloride can be produced in a state of purity and brought easily into contact with the mucous membrane of the pharynx and nasal passages. One of the simplest, neatest, and most compact we have yet seen is that which has been forwarded to us by Mr. J. Preston, High-street, Sheffield. It consists of a small glass vessel stoppered with a tightly fitting perforated cork, into which a glass bulb, open below and filled with glass wool, is inserted. Above, this bulb communicates with the air. At the side of the cork is a bent glass tube open at both ends. In order to

produce the vapour some thirty or forty drops of the dilute solution of ammonia are placed in the glass vessel, and about the same number of drops of strong hydrochloric acid is poured on to the glass wool in the bulb. The cork is now fixed in the vessel, and the fumes are given off and inhaled, and may be made to pass through the nostrils. If any volatile substance requires to be inhaled it may be placed on the glass wool and hot water put in the glass vessel. The apparatus is simple, safe, and effectual, gives a neutral vapour, and can be used for any volatile medicament.

ROYAL UNIVERSITY OF IRELAND.—The following Honours and Exhibitions have been awarded:—*Second Examination in Medicine:* Exhibitions, Second Class, £15 each: Emily Winifred Dickson and William McMath. Honours, Second Class: Emily W. Dickson and William McMath.—*Third Examination in Medicine:* Exhibitions, Second Class, £20 each: Alexander Jamison and Robert Leathem. Honours, Second Class: Alex. Jamison and R. Leathem.—*Medical Degrees (M.B., B.Ch., B.A.O.):* Exhibitions, Second Class, £25: *Hester D. Russell. Honours: Hester Russell. (*Disqualified by standing.)

THE LANCET.

LONDON: SATURDAY, MAY 30, 1891.

THE opening proceedings of the General Medical Council upon the first day of the session were necessarily somewhat subdued and sad. The temporary occupation of the chair by Mr. WHEELHOUSE and the reception of Mr. THOMAS BRYANT, the new representative of the Royal College of Surgeons, emphasised the fact that the Council was a house of mourning, and that a new President must be elected in lieu of the late Professor JOHN MARSHALL. In one sense this task was purely formal, since Sir RICHARD QUAIN had been acting as President during the interval, and there could be no doubt that at the first opportunity he would be unanimously appointed. Still, in spite of the happiness of the terms in which Mr. BRUDENELL CARTER proposed his election, and the enthusiasm with which the election was made, the feeling of regretful melancholy came to the front once more during Sir RICHARD QUAIN'S touching references to his predecessor, and the gloom deepened during the few words of Dr. HAUGHTON in seconding the resolution of condolence with the family of the late President. This resolution referred to the characteristics by which he had endeared himself to all who came into contact with him, his unfailing kindness and courtesy, his patient and well-balanced judgment, and to the sense of personal loss of "so worthy a colleague and so able a President."

Turning from these sad thoughts to the present and the future, we may note, in passing, the terms in which the election of the President was moved. To hear that one strong claim lies in the power of giving "rather pertinent reminders of the costliness of eloquence" is distinctly encouraging, and, unless this power is to remain in abeyance, it may be hoped that the proceedings of the General Medical Council will be somewhat shorter than usual. The adroitness of the reference to the peculiar advantage of selecting a Crown nominee as one "capable of holding an even balance between all the conflicting interests" was also noteworthy, expressing, in brief, the cause of so much costly eloquence. Sir RICHARD QUAIN merits and has our heartiest congratulations on his election. He has worked assiduously upon the Council, both as treasurer and in many other ways, for many years, and he is therefore, by his experience, as well as by his other qualities, admirably fitted to discharge the duties of the presidential chair. Reference to his opening remarks shows that he already feels the influence of his new position of power, and we cordially hope he may long be enabled to display for the benefit of the profession the qualifications mentioned by Mr. BRUDENELL CARTER.

It cannot be said that the first day was productive of much in the way of serious business. When the usual statistical tables were received, it was pointed out that there were no returns of the examination for the Fellowship of the Royal College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow; but, on the technical ground that the Fellowship was not a "qualifying examination," this omission was excused. Then an amusing interlude on election procedure ensued. Direct representatives on the General Medical Council have shortly to be elected, and it was proposed to change the date of the autumn meeting to give them an opportunity of being present. According to the Medical Act (1886), new representatives have to be elected three weeks before the term of office of their predecessors expires, and therefore the difficulty of two representatives claiming to sit in the same seat has to be met. Sir WALTER FOSTER, a direct representative, seemed to share the difficulties of Mr. GILBERT'S "Mikado." His remarks imply a conviction that "self-decapitation is an extremely difficult, not to say dangerous, thing to attempt; and it's suicide, and suicide is a capital offence," of which he doubted the legality, so the matter was referred to the law officer of the Council to ascertain the exact legal position. The removal of a name from the Register, although ultimately agreed to, gave rise to a certain amount of discussion. There can be no doubt that the exercise of its disciplinary powers entails on the General Medical Council the consumption of a vast amount of time, which might be saved, perhaps, if all qualifying bodies possessed the power of withdrawing the qualifications they had conferred. A disagreeable duty has sometimes to be performed, and certainly the time of the Council would be economised if this duty were performed by the qualifying bodies. Sir JOHN SIMON'S idea that those who have not got the power ought to have the power was sufficiently clear, but he did not conclude with a resolution, although he traced the question back to ecclesiastical times. The next business was the consideration of a proposal that University graduates in Medicine should be required to have spent not less than two years in the study of mechanics, physics, chemistry, and natural history, and not less than four years in the study of medicine, surgery, and midwifery. However, the previous question was promptly moved on the ground that a debate upon this subject would be a serious loss of time, and the feeling of the majority was found to be in favour of the previous question, and the labours of the first day were brought to a close. The second day's sitting was taken up wholly with the consideration of cases of alleged unprofessional conduct.

THE publicity which has been given to the allegations as to the insanitary condition of St. Bartholomew's Hospital is evidence of the interest which is felt in institutions devoted to the medical treatment of the sick poor. The bare suggestion that there has been negligence to provide proper surroundings for those who in times of illness are removed from the care of their friends has created a feeling which can only be allayed by the most careful inquiry and the fullest publicity as to the circumstances of the institution.

The report of Dr. SEDGWICK SAUNDERS, medical officer of health for the City, gives a detailed account of the condition of St. Bartholomew's Hospital, and at once places before the public all the facts which are necessary to enable this condition to be understood. Briefly stated, the hospital has shared, with other institutions erected a number of years ago, faults which the better thought of more recent times has taught should be avoided. Water-

closets and slop sinks have been situated in chambers opening directly into the wards; sink wastes have been connected directly with drains; branch drains have been laid beneath buildings and have not been aerially disconnected from large brick main drains, which Dr. SAUNDERS shows are to all intents and purposes sewers; and lastly, the size of these sewers has been so great that they would have served the purposes of a population more than twenty times that which is resident in the hospital. In other words, the drainage of the institution has not been reconstructed since drainage has been more carefully studied and the proper method of its construction has been understood.

The prevalence of diphtheria among the attendants has led to the suggestion that the disease was due to the structural defects stated above. The investigations which have been made by Dr. THORNE THORNE, by Dr. SAUNDERS, and by the hospital staff sufficiently dispel this idea. The diphtheria was practically limited to members of the nursing staff who have been employed in the diphtheria wards, and there is no reason for believing that injury has accrued to the patients from conditions which admittedly need improvement. Since January this improvement has been taken seriously in hand, and Dr. SAUNDERS bears witness to the skill shown in designing the work which has been carried out, and to the thoroughness with which it has been executed. The reconstruction of the main drains or sewers has, however, not yet been undertaken, and we desire to refer to this point because Dr. SAUNDERS appears to be under the impression that Dr. THORNE has regarded this reconstruction as unnecessary. On this point he is evidently in error. Dr. THORNE'S statement was to the effect that whilst these drains are, in point of size, constructive and otherwise, by no means such as would be regarded as proper ones, yet he anticipated such material advantages from the works which he had recommended, as regards the drains leading from the several buildings named into the main drains, that he was not *at present* prepared to advise that any reconstruction of the main drain is called for. That the existing main drains should eventually be replaced by others better suited to the requirements of the institution is accepted by all. The only point upon which there appears to be difference of opinion is as to the time when this alteration should be made. If there is no very urgent reason for delay, we would submit that the work should be executed at once.

We note that on Wednesday the Commissioners of Sewers decided to serve upon the hospital authorities notice to comply with the recommendations contained in Dr. SAUNDERS'S report. Apart from any question as to the statutory powers of the Commissioners, we cannot but think this proceeding to be superfluous. The governing body of the hospital have shown themselves desirous of doing everything that should be done to place the hospital, from a sanitary point of view, beyond suspicion, and we do not doubt their willingness to complete work much of which has been done already with great efficiency.

THE transmission of epizoötic aphtha—or, as it is commonly called, foot-and-mouth disease—from cattle to the human subject, though fortunately not of very frequent occurrence, has several times been reported. Thus Dr. ROBINSON of Dover had an opportunity of examining a large number of cases of this disease near Ashford in 1884, and a somewhat similar epidemic occurred once in Norwich.[1] On the Continent, too, outbreaks of foot-and-mouth disease in human beings have been reported by BOLLINGER, HERTWIG, GAUPP, and others. A paper has just been published on this subject in the *Vrach* by Dr. NESVITSKI, who has recently had under his care six children and two adults suffering from foot-and-mouth disease. One of the children he was able to observe most carefully all through, and he reports this case pretty fully. All, however, presented much the same symptoms with some comparatively slight differences. There was catarrhal inflammation of the mucous membrane of the mouth, and a vesicular eruption on the soft palate, on the buccal mucous membrane, on the gums and lips, and on the edges of the tongue; but in no case on the posterior wall of the pharynx, on the tonsils, on the arches of the palate, or on the dorsum of the tongue. On opening the vesicles, a thick, yellowish liquid exuded. This was much thinner and of a lighter colour in the case of vesicles which had only just formed. The course of the vesicles was very regular; they dried up, leaving a small excoriation, which readily bled but soon healed up, never going on to ulceration. All the patients had some rise of temperature, which persisted until the eruption disappeared. In the case of which details are given the evening temperature for the first five days was about 39·5° C.; on the 6th it was 38·6° C; and after that it became normal. In all the cases there was an acrid smell from the mouth, with profuse secretion of saliva and coryza. In three of the children there was pain in the abdomen. One little boy suffered from diarrhœa, the rest of the children being rather inclined to constipation. In the two adults there was no disturbance of the bowels. The duration of the affection was from eight to twelve days. In two of the children there was parotitis, which, however, did not present itself until after the other symptoms had disappeared. In none of the cases could any affection be found in the body or limbs, there being no purpuric spots as described by BOLLINGER, and no affection of the finger-nails, as has sometimes occurred. On the other hand, no other writer, as far as the author is aware, has noted parotitis as a complication. Again, diarrhœa seems to have been much more common among BOLLINGER'S cases than in this Russian series, which in this respect more nearly resembled those seen by GAUPP. The diseases for which foot-and mouth disease in the human subject is liable to be mistaken are catarrhal stomatitis—simple, erythematous and phlegmonous—ordinary aphthous stomatitis, and thrush. The diagnosis in Dr. NESVITSKI'S cases was rendered all the more certain by the discovery that in every instance the patients had been drinking milk from cows affected with foot-and-mouth disease. The treatment adopted was to give quinine in very frequent doses and to rinse out the mouth with a boracic lotion. The small excoriations were painted with nitrate of silver. With respect to the treatment of this affection, some important laboratory and clinical observations have quite recently been conducted in Germany by Professor HUEPPE and Veterinary Surgeon RENNER on the

[1] See THE LANCET, vol. i. 1884, pp. 484 and 629; also vol. ii. 1885, p. 863

action of dithiosalicylate of soda—a substance discovered by HEINRICH BAUM—upon foot-and-mouth disease. It would seem to exert a powerfully destructive action on a good many micro-organisms which are connected with infectious diseases, a 15 per cent. aqueous solution, for example, it is stated, destroys the bacilli of cholera and anthrax in from two to fifteen minutes. HERR RENNER painted the udders and hoofs of affected cows with 2½ per cent. and 5 per cent. solutions, and found that a very rapid cure ensued; a number of German stockkeepers, too, who have used this remedy speak very highly of its efficacy. It appears that it may also be given to human patients internally, for Dr. LINDENBORN of Frankfort has prescribed it for hospital patients suffering from chronic articular rheumatism, in eight-grain doses four or five times daily, with good effect. A lithium salt has also been prepared, and is said to produce remarkably good results in both rheumatism and gout.

As might have been anticipated, the extension of the curriculum of study to a period of five years is already causing much concern to those who are charged with the necessary rearrangement of studies and of examinations At a recent meeting of the College of Physicians the obstetricians urged their claim for an increased period of study, but the various schemes submitted showed that more trouble had been experienced with materia medica than with midwifery and diseases of women. The view has often already been expressed in these columns that the present system of examination in materia medica can only lead to disastrous results. It is allowed to be taken far too early in the student's career for him to have acquired any grasp of the meaning of many of the terms employed, and the schedule of the Conjoint Board still employs the very misleading term "medicinal actions," so that, unless guided by a teacher who knows the real requirements of the examiners, the chances are largely in favour of the student struggling and floundering hopelessly in his first year through the therapeutic actions, and thus storing up a mass of wrong impressions through necessary ignorance of the proper applications and limitations of the technical terms employed. These difficulties have been so well recognised that, for the purposes of the examination, the term "medicinal actions" has apparently long been held to mean nothing more than "physiological actions." Even this concession has not been found to be altogether satisfactory. At the time when this examination may be taken, even physiological terms may not be appreciated, and, on the other hand, it has been found that this limitation of knowledge leaves a therapeutic blank which is rarely filled up at a later date. Complaints of the ignorance displayed in prescribing are frequently heard from examiners in medicine at the Final Examination. To judge from the schemes submitted to the Colleges, all these difficulties have been fully realised, and much ingenuity has been displayed in the attempts to split up the subject so as to obtain more satisfactory results. One most important step in the right direction is the proposition that attendance on a course of lectures on materia medica and therapeutics should once more be compulsory. This will tend to discourage the system of cramming, which it is to be feared has lately grown into fashion. But beyond this decided step, and the conviction that an examination in therapeutics should form part of the examination to be held at the end of the fourth year, the suggested schemes appear to betray some bewilderment. What is the most convenient time for the examination in materia medica and pharmacy? The first schemes placed an examination in pharmacy together with chemistry and biology, but the scheme which has been provisionally approved by the Royal College of Surgeons provides for an examination in materia medica, pharmacy, and therapeutics at the end of the fourth year, when the candidate is also being examined in medicine, surgery, forensic medicine, and public health, and possibly also midwifery and diseases of women. All who remember the amount of wearisome detail comprised under the terms materia medica and pharmacy, will sympathise with the candidate required to bear this heavy burden, and will regret that at a time when there is so much book work and clinical work of a more attractive nature any energy should be diverted into this channel. While fully realising the importance of a study of therapeutics concurrently with a study of medicine, it is to be hoped that candidates may at least be allowed the option of clearing off the examination in pharmacy at some earlier period. So far the scheme approved by the Council of the Royal College of Surgeons expresses adherence to the principle of four examinations, but on the understanding that details are subject to further consideration. We believe that with very little trouble the whole subject of materia medica, pharmacy, and therapeutics might conveniently be split up into two or more portions, with regard to which examinations might be held at different times. In this way the subject might be made more practical and of greater lasting utility.

Annotations.

"Ne quid nimis."

THE HOSPITAL SUNDAY FUND.

IN another part of our impression to-day will be found the Supplement to which we last week referred as about to issue in support of the Hospital Sunday Fund Collection. We have there given a comprehensive view of one aspect of hospital work, and in the tabular statements by which it is illustrated a summary of the whole of the work accomplished during the past year by the hospitals of the metropolis. Such a statement should prove very helpful to those who next week will be making appeal to the various congregations of the metropolis to aid in the most charitable work of serving the sick poor. We trust that it will actually prove so, and we have, as usual, widely circulated abstracts from the Supplement which we to-day publish among the ministers of various denominations in the metropolis. On this occasion, moreover, we have sought to bring our professional brethren into line with this great movement, and for this purpose have circulated among the medical practitioners residing within the metropolitan area a large number of copies of the abstract. If our readers will be at the pains to place these in the hands of patients whom they think likely to be influenced by such a picture as is here presented of hospital work, they will make a most important contribution to the

success of the present appeal. Many persons would attach to a statement which came to them from a medical man whom they knew and trusted an importance which they would by no means attribute to the same communication if less well authenticated, especially when its bearing is on such a subject as hospital management or hospital work. We desire, therefore, to-day to enlist the sympathy and assistance of our many friends in giving a much-needed impulse to the effort which will next week be made by the religious congregations of the metropolis to aid in the great work done by the hospital medical charities of the metropolis in aid of the London poor.

A TEACHING UNIVERSITY FOR LONDON.

THE Royal Commission having decided that the Charter to grant medical degrees asked for by the Royal College of Physicians of London and the Royal College of Surgeons of England ought not to be granted, and the recent vote of Convocation having determined that the Senate and Convocation of the University of London cannot apply for a new Charter, such as was drawn up by the Senate after a reasonable time as suggested by the Royal Commission, the petitions of University and King's Colleges, praying to be constituted into a University in and for the London district, with power to grant degrees in the Faculties of Arts, Science, and Medicine, have now to be considered. We understand that the Lord President of the Privy Council has given notice to the authorities of those Colleges that he will be prepared at an early date to appoint a committee of the Privy Council, and to hear counsel in regard to their petition and those petitions which have been lodged against their prayer. The petitions which are before the Privy Council opposing the demand of University and King's Colleges are from the University of London, the Royal Colleges of Physicians and Surgeons, the University of Durham College of Medicine, and the University of Edinburgh, which latter is in general sympathy, but raises objections to certain provisions affecting their interest. From the list scheduled in the appendix to the report of the Royal Commission it appears that a statement of the Westminster Hospital Medical School gives reasons in support of University and King's Colleges, so far as the medical faculty is concerned; whilst the petition of the surgeons and physicians in certain metropolitan hospitals recognises the need in London of some academic body to grant medical degrees, which shall directly concern itself with the educational affairs of the faculty. It states that "in the proposed Charter of University and King's Colleges certain advantage is given to the medical schools of those Colleges, and that each metropolitan medical school affords a complete course of medical teaching, "and prays" that in any Charter granted by Her Majesty the position of the medical schools represented by the petitioners may be fully recognised, and that they may be admitted into the constitution of any proposed university on terms of equality with any other teaching institution of like standing." The Scotch and Irish corporations object to any new university which would give special privileges to the English Royal Colleges. It is evident that the other bodies interested, besides the two Teaching Colleges, will soon be called on by the Lord President of the Privy Council to support their petitions, and it behoves the London medical schools to take early and efficient steps to have their just claims brought before the Privy Council, as it is very apparent that the question will soon approach a crisis. In this connexion we are glad to note that a meeting of the delegates of the various medical schools (including those of King's and University Colleges) has been summoned for Thursday, June 4th, at 5 P.M., at the Middlesex Hospital. The Draft Charter of the two Teaching Colleges was published by us *in extenso* on Aug. 6th, 1887.

THE ROYAL BRITISH NURSES' ASSOCIATION.

IT has been already announced through the columns of the daily press that the application made by this Association to the Board of Trade for a licence to register without the addition of the word "limited" to its title has been refused, the Board not having been satisfied with the case put forward by the promoters. This decision has, we understand, been arrived at without hearing the promoters in support of their application, and is not to be considered as a final deliverance. It may be that when explanations come to be exchanged between the Board and the promoters the scruples which at present stand in the way of the necessary permission will be removed. Even if some modification of the powers which the Association proposes to take, and of the definition of its objects, should be necessary, we cannot imagine that any serious difficulty will be found in making such verbal amendments as will satisfy the official requirements. The scope of the undertaking is certainly in no sense that of a business or profit-making concern, so that the difficulty, if any, can only be a matter of expression. We are informed that an interview will be sought with the President of the Board of Trade for the purpose of endeavouring to arrive at an understanding, and we should hope that the result will be to remove, in one way or another, the existing difficulty in the path of the Association.

FOREIGN BODIES SWALLOWED BY A STOWAWAY.

ON Thursday, May 21st, the body of an Arab, found dead on one of the ships in the Albert Docks, was taken to the Seamen's Hospital, name unknown. A necropsy was ordered by the coroner, and made by Dr. F. Croucher, house surgeon to the branch hospital. There were no signs of disease in the brain or the chest, except a few old adhesions in the left pleural cavity. The gall-bladder was very distended and full. Three small ulcers existed on the anterior coat of the stomach. Several patches of inflammation were found in the small intestine. In the cæcum were found twenty trousers buttons, three cog-wheels (apparently out of a watch, two of them 1 in. in diameter—these were doubled), one 2 in. steel screw bent double and one 1 in. screw, six pieces of a lock (the biggest piece was 1½ in. long and ½ in. broad), a circular piece of brass (1¾ in. in diameter folded into four), several pieces of iron wire (four were 1½ in. in length), brass, and lead, and two key tallies on a ring, one inch in length. In the ascending colon, about five inches from the cæcum, were found a piece of steel wire one-eighth of an inch in diameter, and three inches and a half in length, bent double, and one small cog-wheel. The weight of these bodies together amounted almost exactly to half a pound. The body was much emaciated; no subcutaneous fat was present in chest or abdominal walls, or any fat round the kidneys. The deceased was quite unknown; no particulars could be discovered by the police employed to obtain evidence for the purposes of the inquest. There was no perforation of intestines, or any sign of disease in the colon.

INDIA AND THE INTERNATIONAL CONGRESS OF HYGIENE.

WE are pleased to record that a strong Indian committee has been formed in London to ensure the adequate representation of Indian interests at the forthcoming Congress. The committee is composed of leading Anglo-Indian officials and prominent East India merchants, together with other non-officials. Thus what has often been termed the Second India will have voice in the Congress. By this is meant the non-official India, and it embraces very vast interests. Finally, there are three native Indians on the com-

mittee—namely, Mr. Dadabhoy Nowrojee, Mr. B. M. Malabari, and Mr. M. M. Bhownaggree, C.I.E. These three gentlemen are Parsees, but several prominent Hindoos and Mahomedans have been asked to join the London committee. In India the Chambers of Commerce of Bengal, Bombay, Kurrachee, and Upper India have already appointed delegates, thus following the example of the Indian Government and the Municipal Corporation of Calcutta. Other leading municipalities and the syndicates of the Indian universities have intimated their intention of nominating delegates, and we are especially pleased to hear that some native princes have promised aid, either by sending subscriptions or deputing representatives. In one respect, however, prompt and energetic action is necessary. The London Indian Committee have strongly urged upon the Secretary of State for India the desirability of securing the attendance at the Congress of a certain number of native experts. It is understood that the home authorities for India thoroughly approve of this proposal. Surely on further consideration Lord Lansdowne's Government will be equally desirous to see this carried out. There can be no lack of suitable candidates; and how can the native populations of India be taught to appreciate the benefits of sanitation if we do not have native Indians as members of the Congress of Hygiene? The suggestion we threw out last week as to the advisability of discussing the factory legislation proposed for India has, we are informed, been already adopted. The mill-owners of India will, in any case, have their say at the Congress, and we hope that the native workpeople will find their interests equally well befriended.

SAFETY LAMPS AND MINERS' EYESIGHT.

AFTER having been in use for about three-quarters of a century, the lamp known as the Davy lamp has had a heavy indictment laid against it. It is said to be the cause of serious visual troubles, amongst which the most important are nystagmus, hemeralopia, and intolerance of light. The lamp in question was one of the products of Sir Humphry Davy's genius, and was invented by him about the year 1815. Finding that the gases derived from coal required a very high temperature to ignite, and that it was difficult to reach that temperature in the proximity of metal, on account of the rapid conduction of heat that took place, he gradually reduced the length of a series of chimneys till at length they formed only a network of metal threads or gauze. In the Davy lamp the flame was surrounded by a wire gauze, the threads of which had a diameter of one-fortieth of an inch, so arranged as to present 748 apertures to the inch. The effect of such a septum between flame and an inflammable gas may be well shown by bringing down a sheet of gauze upon gas issuing from an ordinary argand burner; the gas above the gauze may be lighted without communicating the flame to the gas below the gauze, even though the wire may become red-hot. The limit of size of Davy's lamp was found to be two inches in diameter, and that of the meshes one-twentieth of an inch. Various improvements were subsequently made, as by Müseler, a Belgian, who greatly improved the light by replacing part of the gauze with glass; whilst Davy himself suggested the introduction of a small cage of platinum wire into the wire gauze safety lamp, the ignition or incandescence of which supplied a tolerably good light. The amount of light obtained by these means is, however, at best but small. In the Staveley district the lamps in use only afford a light equivalent to three-fourths of that imparted by a standard candle, or, under the ordinary conditions of its use, to not more than one-half that of a candle. A further disadvantage is that under the special rules in force in collieries safety lamps are required to be placed at least two feet away from the swing of the pick. And lastly, Dr. Court finds that after burning for some hours the light distinctly deteriorates. It is to Dr. Court that the miners are indebted for making a careful inquiry into the whole subject of safety lamps and miners' eyesight. Dr. Court's practice lies in the midst of a closely aggregated mining community, and, finding that various affections of the eye were becoming more common in this district, he set to work to determine the cause. He soon obtained some remarkable statistics. He examined 1097 persons, representing all grades of workmen employed in mines. Roughly speaking, one-half of these were men habitually using safety lamps, whilst the other half were working with naked lights. Now, of the 524 men working with safety lamps, 164 were found to be suffering from nystagmus or oscillation of the globes, 127 from hemeralopia, and 61 from photophobia, while of the 573 miners using naked lights only 32 had nystagmus, 12 hemeralopia, and one photophobia. Many of the last group had, however, previously worked in safety-lamp mines, and it was found that of 544 men who had always used naked lamps, only three had nystagmus, and amongst 228 men using torch lights not a single case of the disease occurred. There seems then to be strong reason for believing that the feeble light of the safety lamp is at the root of the mischief. It is difficult to give any precise explanation of the cause of the supervention of nystagmus in those working in a feeble light; but it may be remarked that, as may be seen in looking at the stars, a small image falling on the fovea centralis of a highly sensitive retina soon exhausts it and the eye is rolled a little to one side that the image may fall on an adjoining region. By this means a kind of restlessness or oscillation is commenced, which is accentuated by the awkward recumbent position which is commonly assumed during work, requiring for fixation a constant, and therefore fatiguing, effort on the part of the internal and external recti. The intolerance of light and dimness of vision observed on return to ground are more easily intelligible. It is clear that there is room for improvement in the light employed by miners, and the possibility of using some form of portable electric light naturally suggests itself; and, as our contemporary the *Leeds Mercury*, in referring to this subject, remarks, inventors would do well to seek a greater degree of perfection in this direction, bearing in mind that to insure the general adoption of a new lamp its construction must be a commercial as well as a scientific success.

RECOVERY AFTER INTRA-PERITONEAL WOUND OF THE BLADDER.

DR. ROSENBAUM recently communicated to the Caucasian Medical Society an account of an interesting case of a dagger wound of the abdomen, which penetrated the bladder from its peritoneal surface, the patient recovering. Wounds of this character are well known to be exceedingly dangerous, and Dr. Rosenbaum had not met with any case in medical literature in which recovery had occurred. The patient was a man of twenty-nine years of age, who was wounded on Dec. 12th at 8 o'clock in the evening by a dagger thrust in the lower part of the abdomen. He felt at the time very severe pain, but there was little hæmorrhage. Very soon he found the intestines protruding from the wound, and attempted to prevent their extrusion by pressing a handkerchief against them with his hand. He remembers that he then felt a great desire to pass urine, but was unable to do so. After this he lost consciousness, and was in that condition when he was brought to the Michael Hospital in Tiflis at 9 o'clock. On examination he was then very pale, the pupils acted badly to light, the extremities were cold, he lay motionless on the injured side, the pulse was thready and scarcely perceptible, and he gave no sign of intelligence when asked a question. There was a large gaping wound

occupying the left iliac region, six centimetres in length, running upwards and to the left from just above the symphysis pubis. From this there was extruded a mass of omentum as large as half the fist, together with some loops of small intestine. The skin in the neighbourhood of the wound was very dirty and covered with hair; the omentum was also very dirty, and was therefore excised, and with the stump, after thorough cleansing with a solution of perchloride of mercury, returned into the abdominal cavity. The protruded intestine was found not to be wounded, and, after assiduous disinfection, was returned. The bladder was now examined, as the wound was just over it. About a tablespoonful of bloody urine was with difficulty drawn off by means of a silver catheter. The finger introduced into the abdominal wound could be passed directly into the cavity of the bladder. In order to obtain sufficient room to suture the vesical wound it was necessary to enlarge the abdominal wound to about thirteen centimetres. The edges of the bladder were brought together by means of forceps, and eight or ten silk sutures inserted according to Lembert's plan for suture of the gut, the length of the wound being five or six centimetres. Afterwards the cavity of the abdomen was very carefully washed out with a 6 per cent. solution of chloride of sodium and the vesical wound stitched to the abdominal wound, the whole being sewn with a double row of interrupted sutures, Sir William Mac Cormac's advice about making the smallest stitches close to the edges being observed. A Nelaton's self-retaining catheter was introduced, a bladder of ice placed on the abdomen, and a dose of opium administered. The next evening there were pain and vomiting, together with a moderate degree of pyrexia. The pain was troublesome for some time, but the vomiting did not recur. The temperature ran up above normal during the first eleven days. Some trouble was experienced from abscesses which formed in the neighbourhood of the wound, and also from catarrh of the bladder, which, indeed, lasted for a month. The wound was entirely healed on Feb. 12th, and the man was able to leave the hospital on the 21st.

BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

THE President of the Board of Trade has consented to receive a deputation from the British Institute of Preventive Medicine on Friday, June 5th, at 11 A.M., when the facts in connexion with the application to register that body as a limited liability company, with the omission of the word "limited"—an application which, however, Sir M. Hicks Beach, yielding to certain opponents of the institute, recently refused to grant—will be more fully placed before him. We trust that the deputation will be in every way a representative one, and feel sure that the President of the Board of Trade will give most careful consideration to the views it represents, the importance of which can hardly be over-estimated.

THE TRANSATLANTIC CATTLE TRADE.

THE committee appointed by the Boards of Trade and of Agriculture to inquire into the transatlantic cattle trade has been at some pains to investigate the conditions under which this traffic is carried on. Its members are agreed that the business is, on the whole, a prosperous one, and that success in it, as well as the security of life and limb among the animals themselves, are dependent not only upon the uncertainties of weather, but upon a variety of arrangements connected with shelter, ventilation, space, fittings, and attendance on shipboard which are, or ought to be, well within the control of trading and shipping companies. At the same time, a lengthy catalogue of recommendations is very suggestive of the fact, indignantly denied by those engaged in the trade, that needless hardship or, in blunter English, cruelty is frequently endured by cattle on the Atlantic passage. Particular directions are laid down respecting the stowage of cattle on deck, the stability of shelters and of fittings, the space allowed for passage ways, and that ever most essential condition—ventilation. The suffocation of cattle below the weather deck, it is maintained, should be held to prove the unfitness of any vessel for the transport of these animals. The efficiency of cattlemen is rightly regarded by the members of the committee as a matter of importance, and the staff allowed as requisite for every hundred head consists of one foreman and four assistants. These men, moreover, are to be considered as under the authority of the captain and responsible to him for their treatment of the live cargo. Insurance companies, it appears, make no objection to the slaughter, when considered necessary, of suffering cattle, and the committee accordingly advise that this fact should be communicated to cattlemen, many of whom are under a contrary impression. A final suggestion that powers of regulation and inquiry should in future be entrusted to the Board of Agriculture, sums up the findings contained in this report. On the whole, the members of the committee must be congratulated on the care and the practical sense which characterise their work. There is nothing in the recommendations above-stated suggestive either of mere sentimentalism or of prohibitory restriction. On the contrary, their evident purpose and effect, if rightly understood, must be viewed as compassing no less the interests of cattle-owners than the regard which is always due to a rational humanity.

THE INFLUENZA.

THE influenza epidemic during the past week has distinctly declined in the metropolis, and very considerably so in Yorkshire. Fresh outbreaks are reported from various parts of the country, but the diffusion has been by no means so rapid or so wide as in January-February of last year.

INTRA-CRANIAL TUMOURS AND THEIR LOCALISATION.

IN a paper read in the course of last year by Dr. Putnam of Boston before the New York Medical Association attention is directed to the value of the commencement of a convulsion as an indication of the position of the exciting cause of the fit. He starts with the Jacksonian dictum that, given an irritation of the arm or leg area, the attack is most likely to begin in the thumb or fingers in one case and in the toes in the other; these parts being the most highly specialised, or the most lately evolved in their respective limbs. Considerations are urged by Dr. Putnam which are really corollaries of this proposition. They refer chiefly to the occurrence of convulsions in the limbs as effects of tumour at some distance from the limb areas. Particular reference is made to one case published by the author, in which he himself witnessed a convulsion of several minutes' duration, occurring at the shoulder, and unattended by loss of consciousness. This, however, was the only attack witnessed, although (according to the history) there had been others of a more general character, and it was not considered to furnish sufficient justification for operating. Had an operation been performed, with the indication afforded by the occurrence of this convulsion, the tumour would have been found, for it lay at the posterior end of the middle frontal convolution, and had rolled over the upper edge of the hemisphere towards the falx cerebri, strongly compressing the intervening parts. To sum up, the author concludes that the following list indicates approximately the liability to convulsion by irritation in the neighbourhood: (1) Hand, (2) face, (3) toe and foot, (4) elbow, (5) leg,

(6) shoulder, (7) trunk; and, conversely, convulsions limited to or commencing in the parts mentioned in the end of the list would furnish much more reliable indications for localising the irritation than convulsions starting in the hand or face. A similar line of argument is pursued with regard to indications afforded by speech derangement, comprehension of speech in this relation being regarded as the less specialised or evolved condition, and therefore as furnishing by its disturbance a more reliable guide in localising a lesion than is afforded by disturbance of the more highly specialised power of expression.

PUBLIC HEALTH (LONDON) LAW AMENDMENT BILL.

CLAUSES 35, 36, and 37 of the above Bill, giving important powers to the London County Council, were approved on Thursday by the Standing Committee on Law of the House of Commons. It is much to be desired in the interest of the public health that these clauses may be retained in the subsequent passage of the Bill through Parliament.

THE PERILS OF FOOTBALL.

DURING the football season that has just concluded scarcely a week has passed in which we have not recorded more or less serious accidents which have occurred at the game. It is necessary to point out that we have in no way made any special effort to obtain a complete roll of the casualties that have happened to football players. We have recorded them as we have chanced to come across them in the columns of the daily and weekly newspapers which come under our notice in the ordinary routine. There is little doubt that if we had consulted the pages of our sporting contemporaries, and taken other means of ensuring that our list should be an exhaustive one, and inclusive of minor casualties, it would have been multiplied at least twentyfold. There can be no question that these accidents (which are too often caused by unnecessarily rough play, and sometimes, it would seem, almost of malice prepense, players being told off to "stop" a good man of the opposite side) have of late years increased enormously in numbers. It would also appear that they have, as the game has attained greater and greater popularity, become of a much more serious and fatal character. Amongst the casualties we have recorded are twelve cases of death directly attributable to injuries received in football matches: "Asphyxia caused by paralysis of the muscles of respiration"; "acute peritonitis consequent on injuries received while playing in a match"; "injury to the brain"; "rupture of the intestine"; "rupture of the right kidney"; "abdominal injuries" are given as some of the causes of death. It is unnecessary further to particularise. We have said enough to show that this game has, unfortunately, dangers far exceeding those encountered in other forms of amusement. We shall, of course, be told that serious accidents occur in the hunting field, out shooting, at cricket, and at other games. This there is no denying, and we would be at no pains to attempt to deny it; for risk must accompany us all our lives, and every moment of them, and we are not disposed to make much of the little additional risk that is run in healthy and reasonable forms of sport. Football, however, stands almost alone as regards the *causation* of its accidents, which are nearly invariably the result of personal encounter with players of the opposing side, and it is this element of personal conflict which we chiefly deplore. It must never be forgotten that it is often the breadwinner of the family who is incapacitated or killed, and that much misery and suffering are thereby indirectly inflicted. We need not now stop to consider which form of football is the more perilous; there is not a great deal to choose between them, though doubtless the Rugby Union game is responsible for more internal injuries than is that of the Association. Football should be an admirable game and an excellent means of vigorous and wholesome exercise. Indeed, there is no real reason why so desirable a consummation should not be attained. It lies in the hands of the respective authorities of the two games, and more especially of the referees and umpires. It is stated that these latter have been a great deal more severe during last season. We trust that they will much further increase their severity and their vigilance, and so remove the impression which widely, and, as it appears to us, not undeservedly, prevails, that a very considerable amount of wholly unnecessary roughness and danger attends football as at present played. We have more than once expressed our opinion that the game is one capable of doing a great deal of good in the way of affording exercise and recreation to countless young men. Let the referees and umpires and other, perhaps more responsible, authorities see to it, and afford some guarantee that the good football does is not overbalanced by its accompanying perils.

SIR GEORGE HUMPHRY, F.R.S.

HONOURS multiply on the head of Sir George Humphry. The last recorded one will not be the least grateful to him. The *Cambridgeshire Weekly News* of May 22nd reports the proceedings of a special court of the Governors of Addenbrooke's Hospital, under the presidency of the Lord-Lieutenant of the Council. The court was assembled to receive a marble bust of Sir George Humphry, executed by Mr. J. Wiles of Regent-street, Cambridge, the granite pedestal of which bears the following inscription: "Sir George Murray Humphry, M.D., F.R.S., F.R.C.S., LL.D., Professor of Surgery in the University of Cambridge; Surgeon to Addenbrooke's Hospital during half a century; presented by his friends and pupils." The Vice-Chancellor and the Masters of Colleges and Professors vied with each other in saying what Sir George Humphry had done for Cambridge, for Surgery, and for the Addenbrooke Hospital in particular. The Vice-Chancellor made the speech of the day, and descanted on the growth of the Science School in Cambridge, as shown by the 120 candidates this year for the Science Tripos, which is due so largely to Sir George Humphry; he also alluded to his munificence, and to the attachment known to subsist between him and his pupils. Sir George Paget claimed the credit of introducing Sir George Humphry to Cambridge through his brother Sir James Paget. In reply to a vote of thanks for his speech, the Vice-Chancellor said that that hospital was Sir George Humphry's memorial.

ANTIPYRIN IN EPILEPSY.

DR. MCCALL ANDERSON has recorded a case in the *International Journal of the Medical Sciences* under the heading "Case of Epilepsy Cured by Antipyrin." The patient was a boy aged nine years, who had been subject to fits for two years and a half. The first fit occurred six weeks after a fall. At first they occurred from four to six times daily, but later they had been much more frequent, occurring as often as from thirty to forty times a day; there was also paresis of the right arm, and, after this had recovered, of the left. Three months afterwards the fits entirely ceased after the application of blisters to the head, and they remained absent for fifteen months. They began again, however, seven months before the patient's admission to the hospital, and he had as many as thirty or forty or even fifty a day. Just before admission, however, they had decreased in frequency, only occurring about twelve times in the day. On admission on Dec. 20th he was put on five grains of antipyrin three times daily, and this dose was increased gradually until Jan. 9th, when the dose had reached twenty-five grains.

This was continued until Jan. 16th, and then reduced to twenty grains, and again increased on the 28th to twenty-five grains. During the first six days the average number of fits per diem was 16·5, in the next four it was 13·2, on Dec. 31st he had ten, and on Jan. 1st the same number; on Jan. 4th three fits, and then none till Jan. 28th, twelve days after the antipyrin was reduced, when he had one slight fit. The dose was again increased, and no fits occurred when the last report was received on March 12th. While we have to congratulate Dr. McCall Anderson on the excellent result in this case, which he ascribes entirely to the antipyrin, we would demur in the first place to his description of the result as one of cure, and we should also be inclined to ascribe at least some of the benefit received to the changed conditions in which the patient was placed. It is always difficult to say that an epileptic is cured, and this is especially difficult in the case for a patient who has had a period of freedom from fits of fifteen months' duration on a previous occasion, and subsequent to therapeutic measures entirely different from those employed on this occasion; we should therefore hesitate to accept the case as one of cure until a much longer interval of time had elapsed.

CALCUTTA CHOLERA RETURNS.

RECEIVING, as we do from time to time, the periodical reports and appended vital statistics issued by Dr. W. J. Simpson, medical officer of health to the city of Calcutta, we are reminded again and again of the unenviable notoriety which the capital of our Indian Empire retains as the cholera centre of the world. Ever since the issue of Dr. Koch's work, after his Indian visit of 1884, in which he exhibited by means of plates and chapters of descriptive matter the glaring sanitary defects of the native portions of Calcutta, as also the abundance of those conditions which favour the excremental contamination of air and water in the midst of the population, we have felt that nothing short of the most strenuous efforts in the direction of securing wholesome water to drink and reasonable purity of air to breathe could meet the demands which might fairly be made of those responsible for the health of Calcutta. Month by month Dr. Simpson attaches to his report a chart in which red dots tell the number and locality of the cholera deaths, and the map for February now before us shows how densely these deaths are massed together in certain quarters, and how these dots, though diminutive in point of size, wellnigh cover entire areas of the city. It is sincerely to be hoped that the Indian Government and the Municipality of Calcutta will not become so accustomed to the evidence which Dr. Simpson's maps periodically afford as to lose a due sense of the task which that evidence so imperatively imposes upon them.

"LIFE ASSURANCE WITHOUT MEDICAL EXAMINATION."

WE gladly give publicity to a letter from the manager of the North British and Mercantile Insurance Office, appearing on page 1220, in which he replies to certain criticisms which we recently passed on his company's report; but, on referring to the article of which he complains in the light of his explanations, we are at a loss to perceive in what sense our statement is "calculated to mislead." He says that the sudden growth of claims to which we drew attention is mainly due to the claims arising out of the business of another company which was taken bodily over by the North British. This explanation not having been put forward in the directors' report, we were not aware of it when writing, yet we said that "we could not suppose that the financial result under discussion was wholly due to the ill-omened Civil Service scheme." But we remarked on the singular circumstance that with such a fact demanding explanation the directors had afforded no information as to the Civil Service mortality, and drew from their silence an unfavourable inference. Our correspondent now supplies the desiderated figures, and it appears that during the few weeks that the scheme was in operation during 1890 it cost the company, in claims, £3400. Probably six or seven times this sum would represent the corresponding annual cost, say £22,000. Such a beginning to their great experiment abundantly vindicates the wisdom of the directors in receding, as we pointed out, from their original position, and demanding now of all new comers some sort of certificate of health.

THE LATE MR. W. E. POOLE.

WE regret to have to record the death of Mr. William E. Poole, registrar of the Medical Society of London, which took place at 11, Chandos-street, Cavendish-square, on the 22nd inst. He had been in failing health for some time past, and was to have retired on a substantial pension in September next. Mr. Poole had held the office of registrar for upwards of a quarter of a century, and, as stated by the President and other officers at the last anniversary dinner of the Society, its present prosperous condition is in no slight measure due to the unremitting attention he had so long devoted to its interests and to the uniform courtesy with which his multifarious duties were discharged. By his death the Society has lost a faithful servant, whose memory will be long cherished by its Fellows, and in a special degree by the officers and Council, past and present, to whom he had so long rendered loyal service.

ANATOMY AT OXFORD UNIVERSITY.

ON Tuesday next a grant for £7000 will be asked from Convocation to procure permanent accommodation for the teaching of human anatomy. Since 1885, when this subject was first taught separately, the number of students attending the dissecting-room has increased from three to forty-seven (in 1890), and the existing accommodation is altogether too limited for the proper teaching of so important a subject. Human anatomy stands alone amongst the other preliminary subjects in its want of fitting accommodation, as there exist good laboratories in the University for the teaching of chemistry, physics, biology, and physiology. If the grant be passed by Convocation, Oxford will be in possession of the means of teaching adequately all the preliminary medical subjects which are required for the first M.B. examination.

THE POLLUTION OF THE STOUR.

MR. FOSBROKE has commenced an important part of the work devolving on him as medical officer of health to the county of Worcester by submitting a report on the condition of the river Stour, and he has little difficulty in showing that this stream is, almost throughout its entire course, subjected to such wanton and deliberate pollution as the Rivers Pollution Act was intended to deal with. Sewage is poured into the stream in profuse abundance, and often without any attempt whatever at disguise; trade refuse is cast in from wellnigh every industry along its course, and a streamlet, which was originally a source of enjoyment and healthiness to the district, is now nothing but an eyesore and a nuisance owing to its utter filthiness. But, incidentally, Mr. Fosbroke has much to say as to the sanitary state of the localities through which the polluted water-course flows, and he instances the Lye, Wollescote, Cradley, Hasbury, and Halesowen as being gravely neglected in almost every sanitary respect. The houses, too, which are occupied by a number of artisans, also call for adverse comment, quite irrespectively of any conditions resulting from the dirty occupations in which some of the people are engaged

It would indeed seem as if people who had been brought up amid sanitary neglect, whether of their general surroundings or of their native stream, had become habituated even to that form of filth which, as Mr. Fosbroke says, a little limewashing from time to time would materially abate. The main remedy involved as regards the state of the Stour means comprehensive schemes of sewerage for the places specified above. Quarry Bank and Rowley Regis are also prominent offenders against the Rivers Pollution Act, 1876; and in addition to a recommendation that these places should also be dealt with, there is, further, one that Dudley Town and the Stourbridge rural district should take steps to abate the evil. But beyond such specific recommendations, the report shows clearly that a far more active sanitary administration is called for in all parts of the valley of this little but much-befouled stream.

INDIAN MEDICAL SERVICE.

OUR attention has been called to a matter of vital importance to medical officers serving in India, and more especially Indian medical officers in civil employ, and that is the ability—or rather inability—of such officers to obtain leave or furlough when due. It is alleged that there is a very wide difference between the amount of leave that a medical officer may actually obtain as compared with that which he may reasonably expect to get under the rules and regulations published on the subject. Owing to reasons of State, leave is, we are assured, practically stopped for medical officers. Almost every year the same stereotyped reply is given—scarcity of medical officers, expeditions on the frontiers, tribal wars, epidemics, or what not. Moreover, when the medical officer is exceptionally lucky and has leave granted him, he is often put to much inconvenience and expense owing to his not being definitely told beforehand when he will be relieved. Medical officers serving in remote stations in uncongenial climates and surroundings feel the monotony of their lives and duties very much, and look forward to furlough to recruit themselves for further work. Medical officers are more, rather than less, entitled to the same amount of leave that other officers enjoy. They all serve alike under the same rules in this respect. A desire to do things cheaply and the effort to maintain a sufficient reserve to meet the actual requirements of the service are the real causes of the grievance of which complaint is justly made.

MUSHROOMS AS FOOD.

THE alarming symptoms which occasionally follow the use of fungi when taken as food are familiar to most of our readers. The risk in this particular, however, is less than it might be. In actual market custom we recognise but a very few forms of edible fungi, though it must be allowed that even in these we are liable to deception of a somewhat dangerous kind. It is therefore a matter of some importance that the public mind should be informed as far as possible of the qualities which distinguish the edible from the poisonous varieties. To give a precise definition which would also be comprehensive is, however, no simple matter, and as a matter of fact the number of edible fungi, even in this country, is much greater than is commonly understood. It may be said, however, that a high colour, a scaly or spotted surface, and tough or watery flesh are usually associated with poisonous properties, while the edible species are but seldom highly coloured, scaly, or spotted, but usually white or brownish, and brittle on fracture. The former, moreover, grow clustered on wet or shady ground, the latter singly in dry pastures. The common British mushroom is known by its pink hymenium or gills. Fungi which have a bitter or styptic taste, or which burn the fauces, as well as those which yield a pungent milk, those of livid colour, and those which on bruising assume various hues, ought to be avoided. It should be remembered also that all plants of this class readily undergo decomposition, and should therefore be eaten as fresh as possible.

THE SANITARY STATE OF EGYPT.

THE recent publication of Sir Evelyn Baring's able reports has again called attention to Egypt. Its rapid and progressive improvement since our occupation is, as it deserves to be, a source of unqualified satisfaction to ourselves, as it may be a possible source of jealousy to some other nations. There is, however, one direction in which English rule has accomplished almost nothing, and that is in the sanitary improvement of Egypt. We learn from the *Times* correspondent that the weekly mortality has gradually risen to 79 in Cairo, 52 in Alexandria, and 102 in Port Said per 1000 annually. As it was in the days of the Pharaohs, so it is in our days. With one of the driest, healthiest, and most beautiful of climates, man has contrived to make Egypt one of the most insanitary places in the world. The rates of mortality in its cities exceed those of some of the worst cities in Europe. Nature adopts a very simple method of dealing with the population of a country where all sanitary laws and precautions are neglected. High rates of sickness and mortality are simply danger signals to attract attention, and if these are unheeded, a big epidemic comes later on, to be succeeded by others in due course until the lesson is read aright. We may be quite sure that Sir Evelyn Baring is alive to these facts. A scheme for the drainage of Cairo was submitted to the Government of Egypt long ago, but no decision has been arrived at, and nothing has been done. When the next reports upon the administration and material progress of Egypt appear, let us hope Sir Evelyn Baring may have to chronicle something as to the improvements that have taken place in the sanitation and public health of that country since his occupation of it as our representative.

AN AMERICAN MEDICAL CONGRESS.

AT the recent meeting of the American Medical Association resolutions were passed to initiate a medical conference during the Chicago Exhibition. It was proposed to invite the coöperation of members of the profession not only of the States, but of all the republics and colonies of the western hemisphere. The gathering, it is hoped, may be the first of a series of such congresses to some extent comparable with the International Medical Congress.

STARVATION AND DISEASE.

So long as poverty, from whatever cause, is a constant condition of human life, so long must hunger continue to be one of its natural consequences. Probably we should add that, at all events under any circumstances now known or conceivable, instances of actually fatal starvation will from time to time occur. Partly from the practical impossibility of minute inspection, partly from a desire on the part of the poor to shun all avoidable contact with parochial help, cases must now and then appear in which death finds no visible explanation but that of absolute starvation. As for the complication of this condition with serious disease, we need not wonder if here the fatal issue is really a foregone conclusion. The crisis of the poor man's typhoid fever or pneumonia, otherwise possibly not very grave, finds him shrunk with tissue changes the result of inanition, and one might sometimes truly say that he dies, not so much of illness, but because in illness he lived. A number of such cases were last year the subjects of inquest, and others this year will doubtless be added to them. Parish officials, it has been suggested, have sometimes

erred in refusing relief in such cases, and such an error is doubtless possible, nor is it always easily avoidable. The relieving officer's reluctance is probably founded in some instances on a knowledge of the applicant's habits and a natural desire to retain supplies which would soon be converted into alcohol at the nearest public-house. The need of discrimination on the part of officials, and also of voluntary donors of charity, is therefore the more evident. At the same time, the fact that deaths from starvation do occur more frequently than may be supposed ought to temper such discrimination with a due regard for liberality. Particularly should this be remembered in presence of the necessities which often surround the lot of the unfortunate, but industrious and uncomplaining poor.

NOTIFICATION IN NEWINGTON.

THE curious attitude adopted by the Newington Vestry in the matter of the notification of infectious diseases has come to an appropriate end by the rescinding of the resolution which led to it. The Act of 1889 requires that where a medical officer of health receives a certificate of a medical practitioner relating to a patient within the metropolitan area he shall, within twelve hours after its receipt, forward a copy of it to the managers of the metropolitan asylums district. But the Newington Vestry instructed their medical officer of health not to obey the Act of Parliament in this respect; an instruction which was altogether invalid, and would hardly have saved the medical officer of health from a *mandamus* had the neglect been persisted in. The vestry would probably only have suffered in public esteem, whereas their officer would have made statutory default. Whatever the views of the vestry on the subject of notification, they hardly took a dignified attitude in their method of expressing them.

SPINA BIFIDA.

A CASE of this condition in which excision was practised is related by Dr. Gardner in the *Philadelphia Medical News*. There was no hydrocephalus, paralysis, or other condition in any way complicating the case. The child was fourteen months old at the time of operation and in appearance healthy, and the tumour measured nine inches and a half in circumference. Aspiration had been performed several times about a year before, but without any lasting benefit. At the operation no nervous structures were seen in the sac, and it was removed by means of an incision on each side of the tumour near the base, the edges being then brought into accurate apposition by silk sutures. Pressure was applied by means of a large pad of absorbent cotton. Large quantities of cerebro-spinal fluid issued constantly from the wound, but for three days the child to all appearance did well. On the third day, however, it became pale, refused food, and gradually sank and died.

THE DR. STEVENS TESTIMONIAL.

THE letter relating to the "Dr. Stevens Testimonial" which appeared in our last issue, signed by the late Sir Robert N. Fowler, M.P., and Mr. Claude Claremont, M.R.C.S., comes with a particularly fitting grace at the close of Dr. Stevens's long professional and official services, for the blending of those two names represents a wide circle of personal and professional friends, the formation of which commenced during his university career. Dr. Stevens gave up much when he first placed his services at the disposal of the Privy Council for the purposes of their original inquiry into the state and practice of vaccination in various parts of England and Wales, and if his time was so largely devoted to this single branch of the public health service, it was because of the acknowledged grasp which he had of the subject, and because of the success which was so often attained by reason of his personal influence. It is no secret to say that it was with a sense of pain that Dr. Stevens came to see that the arduous duties to which he had so long devoted himself, and which involved almost incessant journeying, could no longer be performed with satisfaction to himself; and we trust that the scheme which has been set on foot will receive such support as to convince Dr. Stevens that, in his retirement, he has carried with him from a large circle of friends, a sense of esteem and regard which is as sincere as that entertained towards him by his former colleagues at Whitehall.

COMPOUND FRACTURE OF THE SKULL.

A CASE is reported by Dr. Rohrbauch in the *New York Medical Record* of a boy who had been kicked on the head by a pony. When first seen he was semi-conscious, with paralysis of the left lower extremity. There was a scalp wound in the right parietal region an inch from the middle line, and the bone underneath was fractured and depressed. The following day the patient was trephined, and the depressed bone raised and removed. The dura mater was found divided and the brain lacerated in the region of the superior parietal lobule four lines to the right of the longitudinal fissure. A considerable quantity of the injured brain substance came away in the process of cleansing the wound. It was dressed antiseptically, and in spite of some breaking down followed by a slight discharge of pus, and accompanied by paralysis of the left arm as well as of the legs, improvement gradually took place; but the legs remained somewhat paralysed, a result apparently of the secondary degeneration consequent on the destruction of brain substance.

PUBLIC HEALTH IN CORNWALL.

A SPECIAL COMMITTEE of the Cornwall County Council have, under the chairmanship of Mr. Silvanus Trevail, completed an analysis of the various annual reports of the medical officers of health throughout the county, and apart from various specific recommendations applicable to special districts, they express the opinion that a number of matters need special attention throughout the county. These are: the indifference with which scarlatina in its mild form is regarded, the alarming increase of cancer, the high infant mortality, the influence of elementary schools as a source of infection, the need for increased vigilance in arresting epidemics, the question of filth accumulations near dwellings, the inadequacy of means for disposal of excreta, and overcrowding. Such matters are, indeed, serious; they involve a number of complicated medical questions of importance, and in their solution skilled investigation is obviously called for. It is therefore with astonishment that we read, in the paragraph which follows this grave array involving so many medical problems, a definite recommendation to the effect that "the consideration of the subject of the appointment of a county medical officer of health ..... be postponed" for another year. The recommendation seems to be singularly inconsequent, and we shall look with interest to see how a number of difficult etiological questions shall by January next have managed to solve themselves by reason of the lapse of twelve calendar months. Apparently, the Committee have been influenced in their recommendation by the fact that most of the sanitary authorities have begged the County Council not to make such an appointment. We hardly wonder at this, in view of the sanitary state of some parts of Cornwall, and of the suggestively faint praise which the Committee bestow, where they say that they are, however, of opinion that "some" improvement has been made during the past year

FOREIGN UNIVERSITY INTELLIGENCE.

Cairo.—Dr. Mohamed Effendi Chakir has been appointed to the Chair of Anatomy.

Jena.—Dr. R. Semon has been promoted to an Extraordinary Professorship of Laryngology.

Kazan.—Dr. Lubimoff has been promoted to the Chair of Anatomy.

Lausanne.—Dr. Dufour has been promoted to the Chair of Ophthalmology, Dr. de Cérenville to that of Medical Pathology, Dr. Roux to that of Surgical Pathology, Dr. Stilling to that of Pathological Anatomy, and Dr. Blanc to that of Zoology and Embryology. Dr. Dind has been appointed to the post of Extraordinary Professor of Dermatology and Syphilography. Dr. L. Secretan has been recognised as *privat-docent* in Otology and Laryngology.

St. Petersburg (*Military Medical Academy*).—Dr. Pasternatski has been appointed to the Professorship of Clinical Therapeutics in succession to the late Professor Koshlakoff. Dr. Samshin has been recognised as *privat-docent* in Midwifery and Gynæcology.

Toulouse.—The new Faculty of Medicine has just been formally opened.

Vienna.—Dr. Kassowitz has been promoted to be Extraordinary Professor of Children's Diseases, and Dr. Chiari to be Extraordinary Professor of Laryngology and Rhinology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Lochmann, Professor of Pharmacology in the University of Christiania.—Dr. E. Nasser, Stadtphysicus of Vienna for many years. The death is also announced of M. A. E. Becquerel, the well-known physicist.

MR. PERCY FORBES WINSLOW, eldest grandson of the late Dr. Forbes Winslow, has just died, at the age of twenty-two, under somewhat painful circumstances. Mr. Winslow had recently completed his medical education, but was still pursuing his studies at Charing-cross Hospital, where he contracted blood-poisoning. The illness was at first very obscure, and after undergoing four operations under chloroform he sank from exhaustion on Sunday the 17th inst. Dr. Abercrombie and Mr. Boyd of Charing-cross Hospital were unremitting in their attentions to him during his painful illness.

THE official minutes of Convocation of the University of London, which are now published, show that 733 members were present during the debate on May 12th, and that 197 ayes voted in favour of, and 447 (not 461) noes against, the adoption of the scheme of the Senate. An analysis of the division list gives—Arts and Laws: 116 ayes, 276 noes; Medicine: 71 ayes, 136 noes; Science: 10 ayes, 35 noes.

THE annual dinner of the officers of the Medical Staff will take place in the Whitehall Room of the Hôtel Métropole on Monday, June 8th, at 7.30 P.M., and those intending to be present should send their names without delay to Brigade Surgeon J. Hector, Naval and Military Club, Piccadilly, W.

IN consequence of important University business requiring Dr. Burdon-Sanderson's presence at Oxford on June 2nd, his first Croonian lecture will be delivered at the Examination Hall on Tuesday, June 9th, at 5 o'clock. The remaining three lectures will be given on the following three Tuesdays.

AT their last meeting the Council of Queen's College, Birmingham, elected Dr. C. W. Suckling into the Professorship of Medicine, vacant by the retirement of Sir James Sawyer.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

TUESDAY, MAY 26th, 1891.

THE Summer Session of the Council commenced on Tuesday, May 26th. Mr. Wheelhouse occupied temporarily the chair in consequence of the death of Mr. J. Marshall, F.R.S., the late President. Sir Richard Quain had been previously appointed to act as President during the period that has elapsed since the death of Mr. Marshall.

New Member.

Mr. Thomas Bryant, President of the Royal College of Surgeons, was received as the representative of that body for the term of five years, dating from March 12th, 1891.

Election of President.

Mr. BRUDENELL CARTER moved, and Sir WM. TURNER seconded, that Sir Richard Quain be appointed President in lieu of the late Mr. John Marshall. He said he had much pleasure in proposing that Sir Richard Quain be elected as President of the Council. They all knew how long a series of years Sir Richard had been not only a member, but an ornament of that body. They all knew his thorough mastery of every duty of the business of the Council. They all knew the distinguished services which he had hitherto rendered to them in the important office of senior treasurer, not least, perhaps, in his occasional rather pertinent reminders of the costliness of eloquence. Apart from those claims of high qualifications, there was, he thought, a peculiar fitness in conferring the office of President upon one of those members of the Council who belonged to them by virtue of nomination of the Crown. The representatives of the Corporations and the direct representatives of the profession had special duties to their own constituents, but the nominees of the Crown were in a peculiar sense national representatives, charged with the duty of endeavouring to hold an even balance between all the conflicting interests, and to adjust them for the public good. This was pre-eminently, also, the duty of the President, and therefore there was much reason for the selection of a Crown nominee for that high office. The subject was one on which he need not enlarge; but on the ground he had already given he had pride in moving that Sir Richard Quain be elected.

The motion was carried heartily and unanimously, and Sir Richard Quain was then conducted to the chair by the mover and seconder of the motion and formally installed into the office, all members standing.

Sir RICHARD QUAIN said that he could not find words adequate to express his sense of the honour the Council had conferred upon him by electing him to fill this high office. During a long life of seventy years he had passed like others through anxieties and difficulties incident to us all; but the position in which he had been placed that day amply compensated for them all. To preside over an assembly composed of the distinguished representatives chosen out of every department of the medical profession was an honour of which he wished he could feel himself more worthy. He felt he could hardly venture to undertake the position if he was not conscious of having had great experience in the business of the Council. For the last twenty-eight years he had been a zealous member, and had hardly ever been absent from a single meeting. He had watched the progress of its proceedings, and he believed that as the Council went on it would get into closer relation with the various corporations and would be held in still higher esteem by the profession. He thanked the Council most cordially for conferring the appointment upon him, and he would endeavour to the best of his ability to fulfil the duties connected with this most honourable position. He had filled the duties of President for the last six months, but he did not think it necessary to give a summary of the duties he had performed. They would be found on the agenda papers. He could not take the chair without expressing his deep sorrow that he was the successor of one who was his valued friend and fellow student. For fifty years he had learned from his good example and his widespread sympathies—his desire to do his duty in every sphere of life in which he was called whether as teacher, surgeon, as President of the Royal College of Surgeons, or as President of this Council. His

aim was ever to do his duty, and he had always done it well. It was the noblest work of man to do his duty, and his dear friend Mr. Marshall had always done his. He would ask the Council to accept the following resolution, setting forth in better terms than he could their appreciation of their late President:—"That the Council desire to convey to Mrs. Marshall and the family of the late President an expression of the great sorrow they feel at the loss they have sustained, and to offer them the tribute of the Council's sincere and affectionate sympathy. By his long, able, and untiring services to the Council, by his unfailing kindness and courtesy, by the patient and well-balanced judgment with which he at all times conducted its affairs, and by the dignity with which he at all times represented the Council on all public occasions, he had endeared himself alike, not only to his colleagues and the officers of the Council, but to all with whom his labours brought him into official contact. The Council could not refrain from offering to his family their sense of the personal loss entertained by its members individually by the death of so worthy a colleague and so able a president."

Dr. HAUGHTON felt constrained to say that this time twelve months he had had the honour of entertaining Mr. Marshall in Dublin, when he received from the University of Dublin, in common with Sir Richard Quain, the highest honour that University had to bestow, and in that week he had had an opportunity of seeing and judging for himself of the inner working of that good man's mind. He felt that the impression of that week's intercourse with Mr. Marshall had left him a better and a wiser man.

The resolution was agreed to unanimously.

The Fellowship of the Edinburgh Colleges.

On the motion to receive the usual statistical tables, Dr. GLOVER called attention to the absence of any returns of the examination for the Fellowship of the Royal College of Surgeons of Edinburgh, and of the Faculty of Physicians and Surgeons of Glasgow.

Dr. HERON WATSON explained that the Fellowship was not a qualifying examination, and that the tables only gave "results of professional examinations for qualifications."

Dr. GLOVER thereupon pointed out that both the Irish and English Fellowship results were returned in the tables. Formerly the Scotch bodies granted their Fellowships without examination; but happily, now that examinations were conducted, it was desirable that the Council should be in possession of the results.

Election Procedure.

The report on the mode of procedure recommended for adoption in the present year for the election of the direct representatives of the medical profession on the General Medical Council was submitted to the Council, and Sir WILLIAM TURNER moved that it be received and entered in the minutes. The report proposed to postpone the autumn meeting of the Council until Tuesday, Dec. 1st, so that the newly elected representatives might have an opportunity of taking part at that meeting of the Council. The Medical Act (1886) provides that the returning officer shall, not less than six weeks, nor more than two months, before the day on which the term of office of the representatives expires, issue his precept requiring the Branch Council to cause representatives to be elected within twenty-one days after the receipt of the precept. The recommendations contained in the report gave rise to considerable discussion.

Sir WALTER FOSTER questioned the legality of the position; they had no power to turn men out of office before their term of office had legally expired, and this report proposed to elect candidates to fill offices which were not vacant. He thought that was a preliminary difficulty in accepting the report.

Dr. BRUCE pointed out that Clause 8 of the Medical Act (1886) required that the "said representatives [i.e., elected in that year] shall come into office on Jan. 1st, 1887." It seemed to him that this rule should be followed now, and that the members elected in October next should not come into office until Jan. 1st following.

Sir WALTER FOSTER ultimately moved that the committee be requested to withdraw the report, and to appoint a conference with the law officer of the Council in order to ascertain the exact legal position, and this was agreed to.

Case of Dr. Alexander Paterson and University Discipline.

The following communication from the Royal College of Surgeons of England, submitted to the General Council by direction of the Executive Committee, in regard to Dr. Alexander Paterson, non-registered as resident in Sydney, with the qualifications M.B., M.S., 1866, M.D. Edin., 1868, and M.R.C.S. Eng., 1866, was read. It stated that "as Mr. Alexander Paterson, admitted a member of the College on Nov. 15th, 1866, has refused to make the statutory declaration required by the Council, and as the advertisements issued by him are, in the opinion of the Council, in the terms of Clause 2, Section 16, of the by-laws, 'prejudicial to the interest,' and 'derogatory to the honour of the College,' and 'disgraceful to the profession of surgery,' he be removed from being a member of the College."

It was moved by Mr. WHEELHOUSE, and seconded by Mr. BRYANT, that the qualification of the Royal College of Surgeons be removed from the Register.

Dr. GLOVER asked whether the University of Edinburgh could not act in this case.

Sir WILLIAM TURNER pointed out that the Scotch universities had no such power.

Sir JOHN SIMON said a man became a member of the profession, not by the action of the Council, but by the action of qualifying bodies. If the bodies withdrew the qualifications, the graduates became practically disregistered; but there were bodies which had not that power, and the view which he took, and one for which he could quote the authority of their lamented late president, was that these bodies ought to have the power. It was in the knowledge of the Executive Committee that the late president had prepared a draft bill which would give to all bodies granting medical qualifications the power of withdrawing the qualifications. He was strongly of opinion that that was the right policy of the Council. It was a most scandalous thing to have cases brought before them where persons doing infamous things in some parts of the United Kingdom had qualifications which could not be removed. He could quote cases in which various bodies had come to the Council asking to have names of their diplomates struck off the Register, on the ground that they had no power to withdraw the qualification. The time of the Council should not be taken up in dealing with cases of that kind. Those who put on ought to have the power to take off, and they ought not to shirk the responsibility of striking off their Register those who were guilty of proved offences. The case of the Universities was somewhat different, but not importantly different, and if they asked for power to be given to the Universities to remove, upon cause, the degrees which they had granted, neither the Universities could reasonably object to that power being given them, nor could Parliament reasonably refuse to grant them the power. The present state of things had, he thought, dated from ecclesiastical times. There was a touch of "Once a priest always a priest" in it, and as they could not "un-priestify" a man, they would not "undoctorise" him. It was a remnant of old prejudice relating to other subjects. The Universities should, he thought, concur with the Council in asking Parliament to give them power of this kind. He cautioned the Council against going with too light a heart into these everlastingly increasing questions of throwing discredit amongst individual bodies, whether English, Irish, or Scotch.

After a few remarks from Dr. WILKS, and in accordance with the motion of Mr. WHEELHOUSE, it was agreed to erase from the Medical Register the qualification which Dr. Alexander Paterson had obtained from the Royal College of Surgeons.

Mechanics, Physics, Chemistry, and Natural History.

Dr. HAUGHTON moved: "That, in the opinion of the Medical Council, university graduates in medicine should be required to have spent not less than two years in the study of mechanics, physics, chemistry, and natural history; and not less than four years in the study of medicine, surgery, and midwifery." He said that the time had come when universities in conferring their degrees should differentiate themselves from corporations and bodies giving licences of qualification to practise. The proposal for the five years' curriculum stank particularly in the nostrils of the authorities of Dublin University, because of the extraordinary proposal to spend six months of the last year in learning medicine from a practitioner who had forgotten all he knew forty or fifty years before. They would never consent to such a degradation of the University degree. He was here proposing a better thing in conformity with the practice of the University of Dublin and the growing and prosperous medical schools

of Cambridge. In Dublin they did not look upon these physical sciences as belonging to medicine; they were general sciences and ought to be studied, and were studied, by young men intended for other professions. In subjects of natural history, Scotland and her universities had held for many years a well-deserved and most honourable supremacy. To accept a three years' curriculum would be to admit a suppressed premiss—that these subjects, mechanics, physics, chemistry, and natural history, were branches of medicine. And there was another fallacy which implied that these great subjects could be learned in one year. As a teacher for over forty years, he maintained that in one year no knowledge of them that was worth possessing could be obtained. It was notorious that these subjects were not taught in schools, and therefore the Universities ought to claim from their graduates in medicine a far higher knowledge of these important scientific subjects than was absolutely necessary for the bare feeling of a pulse, using a stethoscope, or cutting off a leg. He had never been convinced that four years was not amply sufficient to learn all that was necessary to fit a man for practice in medicine, surgery, and midwifery if these four years were commenced with an adequate knowledge of mechanics, chemistry, physics, and natural history before medical studies were undertaken. Although these were not medical studies, they were the pillars on which medicine rested, and a more intimate knowledge of these subjects ought to be required of University graduates. Unless some such change was brought about, he knew the time would come when Universities would cease to have degrees which were valued as higher than those of an ordinary qualification.

Sir JOHN BANKS seconded the motion.

Mr. MITCHELL BANKS moved the previous question, and thought that a debate upon this subject would be a serious loss of time to the Council.

Dr. PETTIGREW seconded the previous question, which was carried by a majority of 14 to 6.

The Council then adjourned.

WEDNESDAY, MAY 27TH.

Removal from the Register for Advertising.

The Council had under consideration the case of William Ainslie Goodall (registered as L.K.Q.C.P.I., 1885), who had been summoned to appear before the Council on Wednesday, May 27th, at two o'clock, on the following charge, as formulated by the Council's solicitor: "That he was associated with a notorious objectionable concern called 'London Staff,' and had adopted the reprehensible modes of practice of that organisation, by offering to practise gratuitously and to guarantee cures, and by issuing objectionable and disreputable advertisements to the public, for which conduct his name had been erased from the Medical Register of the Province of Nova Scotia, and from the Roll of Licentiates of the Royal College of Physicians of Ireland." The accused did not appear in answer to the charge, and the Council, after deliberating in private, directed that his name and qualification be removed from the Medical Register.

The whole of the remainder of the afternoon was occupied with the consideration of a case of alleged covering, which was adjourned.

THURSDAY, MAY 28TH.

Report of Finance Committee.

The first business of the Council to-day was the consideration of the financial Report, which shows that the income of the General and Branch Councils for the year ending Dec. 31st, 1890, was £8042 18*s.* 7*d.*, an amount which is less by £463 6*s.* 5*d.* than the income for the previous year. The expenditure during the year 1890 has been £7868 12*s* 2*d.*, an amount greater than that of 1889 by the sum of £1193 2*s.* 8*d.* A comparison of the income with the expenditure shows that the income during the past year has exceeded the expenditure by the sum of £174 6*s.* 5*d.*

On the motion of Dr. Wheelhouse, seconded by Dr. Moore, the report of the Finance Committee was duly adopted and ordered to be received and entered on the minutes.

Sir WILLIAM TURNER said he thought that the report of the Finance Committee should not be allowed to pass over without the Council expressing its deep obligations to Sir Richard Quain for the very valuable manner in which he had discharged his duties as treasurer during so many years. The Council might congratulate itself upon the highly satisfactory position of its finances, and his successor would find the financial position of the Council thoroughly satisfactory. He therefore moved that the cordial thanks of the Council be accorded the late treasurer.

Sir WALTER FOSTER, in seconding the proposal, rejoiced that the long and faithful services rendered to the Council and through the Council to the medical profession by Sir Richard Quain were at last recognised by his being elected to the chair, and he trusted that he would be long spared to preside over their deliberations, and that the sagacity and wisdom brought to bear for so long a period as treasurer might now be transferred to the higher and nobler position of President for the benefit of the Council and the medical profession.

The resolution was passed unanimously.

The PRESIDENT, who heartily thanked the Council for the resolution they had passed, said that when he joined the Council twenty-eight years ago the funds were £20,000, and he left them at £35,000, which he felt was a very satisfactory position for a treasurer to hold. He also observed that when he was appointed treasurer the Council met in a miserable hole in Soho-square, but, thanks to Mr. Lowe, they were now able to meet in their present beautiful hall.

Appointment of Treasurer.

Sir DYCE DUCKWORTH pointed out that it became necessary for the Council to appoint a senior treasurer to succeed Sir Richard Quain, and he begged to propose that Mr. Bryant be elected as his successor.

Mr. WHEELHOUSE seconded the motion, which was carried unanimously.

Examination Inspectors.

Dr. BRUCE had a motion on the paper on this subject, stating "that it will conduce to uniformity of result if a single inspector be permanently appointed to visit the different examining bodies and report on the standard requisite to pass in medicine, surgery, and midwifery; and that he shall henceforth become a paid official of the Council, who will be ready to inspect, at any time he may be asked, any of the universities or licensing corporations of the three divisions of the kingdom." Dr. Bruce withdrew his motion in favour of Dr. Struthers' motion, which followed—viz., "That a committee be appointed to consider the subject of the visitation and inspection of examinations under the Medical Acts of 1858 and 1886, and to report, if possible, to the Council at its present session."

Dr. STRUTHERS thought that since the Council had obtained this power of visitation there had been a reluctance to put it into operation. It was to him a surprise that some years ago the conclusion was come to that this inspectorship might be suspended. The question for them to consider was whether at that time they had erred, or whether they had done wisely. He thought the power of visitation should be extended to all subjects. Some years ago a motion had been made by Sir John Simon, the main principle of which was adopted by the Council. The principle was that the "visitations and inspections should systematically cover the pass examinations in *all* branches of knowledge which the Council deems essential."

The committee appointed consisted of Dr. Struthers, Mr. Wheelhouse, Dr. Bruce, Sir Dyce Duckworth, Sir Walter Foster, Mr. Mitchell Banks, Dr. Macalister, Sir John Simon, Dr. Leishman, Dr. Heron Watson, Sir John Banks, Dr. Moore, and Dr. Kidd.

Practical Instruction in Midwifery.

Dr. GLOVER moved: "That it is urgently necessary for the examining bodies to require of candidates for their diploma additional guarantees of practical education in obstetrics; and that candidates at the final examination be required to produce proofs that they have personally conducted at least six, and been present at at least twenty-four additional labours, and of having attended as pupils for six months a lying-in hospital, or the lying-in department of a general hospital or a maternity institution, with arrangements for clinical teaching approved by the examining body granting the diploma." He said the subject was one which he brought forward at their last meeting. It was not his fault, but it was his regret, that it should have to come before them again. The matter was left at their last meeting in a very unsatisfactory condition. His motion was rejected by only two votes. Then a resolution to leave things as they were was not carried.

A similar resolution by Sir W. Turner was negatived, and after much discussion there was a clear feeling in the mind of the Council that it was desirable that the thing should stand over to the present meeting, and to that feeling he deferred. There was always some advantage in the delay of questions, and he hoped the advantage to those who thought strongly on the matter would be apparent. There were some features in the discussions and divisions of last year which might be recalled. Many of their most distinguished Irish members were not present. Many members did not vote. He hoped the time which had elapsed would give them the advantage of the definite vote of those gentlemen. He took it that the principal duty of this Council was to guarantee the sufficiency of the standards of examination not merely in medicine, but in surgery and midwifery. The peculiarity of the Act of 1886 was to make midwifery as important as either medicine or surgery, and to impose upon the Council the duty of seeing that the demands and standards were equal to those in medicine and surgery. However, their demands had been very different with regard to midwifery as compared with medicine and surgery, especially in regard to the clinical experience and the hospital practice required by the medical student. The demand in midwifery of the College of Surgeons of England and of the Apothecaries' Society of England was twenty cases, but no lying-in hospital practice, though demands were made for the latter in medicine and surgery. Glasgow required hospital practice for two years, but in regard to midwifery it was content with twelve labour cases, or three months' in-door practice in obstetric medicine. How did the Council justify this difference? If hospital practice was good in medicine and surgery it was equally good in midwifery. He wished to impress the point especially because of the fact that midwifery was one of the subjects upon which they could not examine students as they did in medicine and surgery. With regard to the points attempted to be made against him last year by Professor Leishman and Sir W. Turner, he might be permitted, as a Scottish graduate, to express his regret that the opposition to his motion should derive its principal strength from those two distinguished professors. He would remind them that the two greatest teachers in practical midwifery who ever lived were Scotsmen. Dr. Smellie, when he came to London, taught something like a thousand pupils in nine years, and he took them to the houses of the people and gave them practical demonstrations, which he (Dr. Glover) wished students could have that day. Dr. Leishman said he would undertake to teach more midwifery by the demonstration of one case than students would in a haphazard fashion take up in thirty cases. One case, it need not be said, would not illustrate the varieties of labour, not to mention the other fact that the students of Dr. Leishman never saw him demonstrate a case of labour. A point made against him last year was the objection by Sir W. Turner to the number of cases.

Dr. HAUGHTON: In Edinburgh?

Dr. GLOVER: And in some other places. But he considered he produced proof that that difficulty would be met in those places. If it could be met in Edinburgh and Aberdeen it could be met elsewhere. He desired to conciliate Sir W. Turner, and would like to point out to him that the addition of one year made to the curriculum would extend the time in which this necessary experience was to be got. It would not only increase the time, but in all probability somewhat diminish the number of men requiring cases. The resolution of the Council required a student to have attended twelve cases of midwifery, three cases personally, or, as an alternative, three months' practice in a lying-in hospital. There was no proportion between these conditions, and he thought that recommendation of the Council was entirely inadequate and absurd. In conclusion, he earnestly hoped something would be done now to put practical teaching in midwifery on something like a level with the practical teaching in medicine and surgery.

Dr. ATTHILL, in seconding the motion, said it was with some feeling of shame that it should be necessary, at the present time, when such advances had been made in every other branch of the profession, to have to bring forward such a motion before the Council. He thought that the very moderate improvement sought to be effected in midwifery would be endorsed by almost every practitioner throughout the country as being absolutely essential, and would be considered as being the very minimum which the Council should insist on as being necessary to stamp a man as fit to conduct cases of midwifery. Of course he admitted that a number of women could be delivered without any aid at all, but the mortality of mothers and of children was very serious, and was the lamentable consequence which resulted from the ignorance and inefficiency of those who attended such cases. Instead of the students personally conducting six cases, he would be glad if the number was increased to sixty; but that was not possible. He wished to throw no unreasonable obstacle in the way of schools, and he had been told there was great difficulty in attending the cases; but it should not be so. To all the best managed hospitals there was a maternity institution attached, and such institutions should be established at every large hospital. Students should receive at least the same amount of instruction in midwifery as in medicine and surgery. That, however, was not the case, although the very first cases a junior practitioner was sent to attend were midwifery cases, whilst years might pass before he would be trusted with a serious case of surgery or medicine in which he received a larger amount of instruction. He therefore hoped that the Council would pass the motion unanimously, and thereby enforce a fair amount of education for pupils in obstetrics.

Mr. WHEELHOUSE supported the motion. He maintained that, as the law stood, present requirements were utterly inadequate. During the past year there had been great agitation in Parliament and all over the country on the subject, and the Council had been taunted with laying down that three cases of midwifery were sufficient for the instruction of the student.

Dr. LEISHMAN held himself bound to protest against the grounds upon which this proposal was mainly made. It proceeded, as far as he understood it, upon the initial fallacy that the proper way of teaching midwifery was to be based upon the number of cases. He ventured to say that the proper way of teaching midwifery was careful clinical teaching, and in that respect he entirely agreed with Dr. Atthill. Clinical teaching in regard to this important subject should be carried out as far as possible in the interests of the students and of the practitioners, and also in the interests of the patients—those persons whom he called unfortunate patients, who were looked upon apparently as so much clinical material. Surely common delicacy would urge us not to expose these women to indelicate treatment further than was absolutely necessary. Instead of increasing the number of cases beyond what is considered sufficient in continental schools, they should rather be content with the minimum they had fixed. He recapitulated the history of the new proposals with regard to midwifery, and pointed out that the question had been fully considered by the Council already, and that they were merely having a repetition of the arguments urged at the last meeting of the Council. He argued the question on the ground that serious difficulties existed in certain schools in regard to obtaining clinical material for this subject, but as he was anxious to meet the views of those of the Council who differed from him, he proposed "that every student should be required to attend for six months either a lying-in hospital or a maternity institution."

Dr. KIDD strongly supported Dr. Glover's motion, and said that there was no branch of the profession in which ignorance was followed by such lamentable results.

The following members of the Council also took part in the discussion:—Sir John Banks, Dr. Haughton, Mr. Brudenell Carter, and Dr. Struthers.

Sir JOHN SIMON thought it was better to leave the number of cases to be fixed by individual authorities. One of the seven wise men said that "the perfection of wisdom is in the sense of proportion," but this proposal dealt very disproportionately with certain of the licensing authorities. The function of the Council was to deal with general principles and not to nibble at particularities.

Sir WALTER FOSTER strongly supported Dr. Glover's motion.

Several amendments were subsequently moved, and after a long debate it was agreed, on the motion of Dr. MACALISTER, "that the Council, having duly considered the question of the amount of obstetric practice which should be required of candidates for medical qualifications, resolve to adhere to the present recommendations of the Council as fixed on May 26th, 1888."

The Council then adjourned.

THE NEW INFIRMARY, DERBY.

HER MAJESTY THE QUEEN, amid many hearty congratulations of loyalty, laid the foundation stone of the New Infirmary, Derby, on Thursday, May 22nd. The Queen received an address from the Corporation of Derby, and from her carriage replied as follows:—"I have received with much pleasure your loyal and dutiful address, and I highly appreciate the cordial welcome which has been accorded to me by my faithful people of Derby. It is with sincere satisfaction that I observe how largely your ancient borough shares in the general prosperity and progress of my kingdom, and I feel encouraged in meeting the responsibilities that devolve on me when I know I have the hearty support of my faithful subjects. Although I am glad to be here today, I cannot but feel the greatest sorrow, which, I am sure, is shared by you all, at the death of Lord Edward Cavendish, who was so universally beloved. I condole most sincerely with his father and his family, and regret that this sad event has deprived us of the presence of Lord Hartington on this occasion." Addresses from numerous other bodies were also presented.

On arrival at the Infirmary, where a guard of honour of the 1st Battalion, the Sherwood Foresters (late 45th Regiment), was drawn up, Her Majesty was received by the High Sheriff of the county, the Mayor of Derby, and Lord Scarsdale, in the absence of the President of the Infirmary. Lord Scarsdale read an address, to which the Queen made the following reply:—"It is with sincere pleasure that I receive your address and lay the foundation stone of the new building which you propose to erect. I earnestly hope that this undertaking, in which I take a deep and personal interest, may effectively contribute to the relief of human suffering, and to the help of those whose career of honourable labour has been interrupted by accident or by sickness. I am glad to testify by my presence here to day my appreciation of the generous efforts that have been made on behalf of this noble charity." The Lord Bishop of Southwell offered prayer. Upon the trowel and level being handed to Her Majesty by Mr. Young and Mr. Hall, architects, the Queen laid the foundation stone, after which the following presentations were made to Her Majesty by the Earl of Lathom:—The Lord Bishop of Southwell, the Lord Bishop of Derby, the High Sheriff of the county, Lord Scarsdale (vice-president), the architects, the senior physician (Dr. W. Ogle), the senior surgeon (Dr. W. G. Curgenven), the house surgeon (Dr. C. H. Taylor), and the matron (Miss Pratt). Her Majesty re-entered her carriage, and the Royal party returned to the Midland Railway Station by the London-road.

The following is a description of the contemplated buildings:—The new hospital for the county of Derby will consist of thirteen blocks of buildings, which for the purpose of description may conveniently be numbered as follows: (1) Front administration; (2) back administration; (3) laundry and engine house; (4, 5, 6, 7, and 8) ward pavilions; (9) out-patient department; (10) chapel; (11) operation room; (12) home for nurses; and (13) mortuary. The central block, round which the wards and other buildings are grouped, is No. 1 (the front administration). This is a three-storey building, and contains on the ground floor the main entrance to the hospital with the secretary's office, waiting-room, porter's office, and room for medical staff closely adjacent. The eastern part of the ground floor is devoted to the casualty department with its separate entrance, waiting-room, consulting-rooms, and a small ward for cases of urgency. On the first floor is the board room, with the residential quarters for the medical staff and the matron. The second floor is devoted to bedrooms for the servants. This building is connected to the back administration (Block No. 2) by a corridor, and again to the main hospital corridor, which, running at right angles, divides the block in question into two unequal parts. The lower or larger part of the block contains on the ground floor the stores, linen rooms, &c, and on the upper floor the kitchen offices and larders. The upper or smaller part contains on the ground floor the nurses' dining-room, servants' hall, and pantry, and on the upper floor, bedrooms and sitting-rooms for the porters. Block No. 3 contains the laundry, with a separate washhouse for infected linen, the boiler house, engine-room, disinfecting house, and cremator for refuse. Block Nos. 4 and 5 are similar in all respects, so that a description of one will suffice for the other. Each block is approached from the main corridor by a covered bridge, with free ventilation at each side and of sufficient height only to afford proper head room. The object of this arrangement is to isolate each ward from aerial contact with the other wards, and thus to prevent the connecting corridors being channels for the conveyance of air from one ward to the other. The wards are 127 feet long and 29 feet wide, and are arranged to hold twenty-four beds each. Each bed is separated from its neighbour's by a window, and each patient will have 145 feet of floor space and 1890 feet of cubic space. The floors will be laid with teak or some similar hard wood bedded directly on concrete, and the framework of the floors and ceilings will be of iron bedded in concrete. In the finishing of the walls, floors, ceilings, windows, and doors, all internal angles will be rounded, in order to provide against lodging places for dust. The wards will be warmed partly by open fireplaces placed in the centre with descending flues, and partly by steam coils placed in window recesses and provided with fresh air from outside. At the further end of the wards are two towers, connected with the wards by covered bridges, containing the sanitary offices and the bath rooms. Between these towers are balconies for the use of convalescent patients. Block 6 is on the ground floor, exactly similar to Nos. 4 and 5. On the upper floor it contains six small wards for one bed each, and a general ward for ten beds, all of which will be allotted to the gynæcological department. Block 7 is similar in all respects to Nos. 4 and 5. Block 8 is a two-storey building, and will be devoted on the ground floor to diseases of the eye. It contains two wards for six beds each, and has, in addition to the usual ward offices, a separate operation room, with a recovering room attached. The upper floor of this block contains two wards for children, with the necessary offices. The out-patient department (No. 9) is at the extreme south-east of the main corridor, and is a one-storey building. The entrance for patients is in the centre of the front facing the London-road. Immediately inside the entrance are two small waiting lobbies for new patients, separated from each other by the porter's office. From these access is obtained to the general waiting hall. Off this hall are placed the four consulting rooms, each of which is provided with a small examining room. From these consulting rooms the patients will go to a second waiting room, where they will wait their turn to receive their medicines from the dispensary. Behind the dispensary is the pathological department and museum. The chapel (No. 10) is placed midway between the back administration and the eastern ward pavilion (Blocks 4 and 5). In the corresponding position to the last on the western side of the administration block is the operation room. Beside the operation room itself there is a room for the administration of anæsthetics, and a room for the staff. The operation room will be lined with marble slabs up to height of between seven and eight feet, above which the walls and ceiling will be painted and varnished. The floor will be laid with "mischiati," which consists of marble chips bedded in cement, and forms a very hard, impervious surface. In all its details every effort will be made to secure as entirely aseptic conditions as possible. The home for nurses (Block 12) is a detached building, and will afford accommodation for forty-eight nurses. Each nurse will have a separate bedroom and separate sitting room, and reading rooms will be provided for the staff nurses and probationers respectively. The mortuary block (No. 13) is also a detached building, and will contain, in addition to the mortuary and post-mortem room, a separate chamber where bodies will be placed for friends to view, and an ambulance house and stable. Externally the buildings will be faced with red bricks, with Bentley Brook stone mullions, cornices, and mouldings. The style adopted is late Elizabethan.

JUBILEE OF THE PHARMACEUTICAL SOCIETY.

THE official celebration of the jubilee of the Pharmaceutical Society took place on Tuesday evening at the Society's house, 17, Bloomsbury-square, W.C., in the presence of a very large number of ladies and gentlemen. The President (Mr. M. Carteighe), who occupied the chair, read the names of the original members and founders of the

Society, and then invited the delegates of the scientific societies represented to present their addresses of congratulation.

Sir Dyce Duckworth (Treasurer of the Royal College of Physicians) said that the relations between pharmacy and medicine were so close that he need only say that the College of Physicians must ever take the greatest interest in all matters pharmaceutical. He came to bring that Society words of welcome and hearty sympathy on that most auspicious occasion. Sir Dyce Duckworth also conveyed to the Society the congratulations of the Clinical Society, of which he is the President.

Sir William Thomson, P.R.S., said no other of all the applications of science was so full of beneficence as the application of chemistry and the science of materia medica generally to the relief of mankind from illness and to the improvement of the public health. On behalf of the Royal Society he congratulated them, and wished them all possible success in the excellent efforts which they made for the advance of science.

A very large number of addresses from British and foreign societies were then read and presented, and at the conclusion of this part of the proceedings the President presented the Hanbury gold medal to Dr. Hesse, the distinguished German chemist, specially known for his researches into the qualities of cinchona alkaloids.

Dr. Hesse, who was cordially received, expressed his appreciation of the honour which had been conferred upon him by the Society, and offered to the President a contribution on coca alkaloids for publication in the journal of the Society.

Professor Odling moved a vote of thanks to the chairman, which was seconded by Mr. Ryder Cooke and heartily accorded. During the evening the band of the Grenadier Guards, under the direction of Lieutenant Dan Godfrey, performed a selection of music in the examination hall.

In the evening the President and members of the Society entertained about 350 guests at dinner at the Criterion Restaurant in celebration of the Society's jubilee. The toast of "The Founders of the Pharmaceutical Society" was responded to by Mr. E. Horner. That of "The Medical Profession" was replied to by Sir Dyce Duckworth, who took occasion to express his regret that botany should have been removed from the medical curriculum. The "Learned Societies" was acknowledged by Professor Michael Foster and Mr. T. Holmes. The toast of the evening, "The Pharmaceutical Society, and the Health of its President," was given by Sir Lyon Playfair, who remarked that he had spent six months in a druggist's shop in order to learn thoroughly the art of pharmacy. Other toasts followed, including one in recognition of the foreign guests who were present on the occasion. The gathering was altogether of a successful character.

THE LATE PROFESSOR JOHN MARSHALL, F.R.S.

SUBJOINED is the second list of subscriptions to the Marshall Memorial Fund. Those who wish to contribute to the fund are requested to send their subscriptions to the treasurer, Mr. John Tweedy, 100, Harley-street, W.

	£	s.	d.		£	s.	d.
Dr. Tempest Anderson ..	1	1	0	Dr. W. R. Gowers	2	2	0
Mr. P. Ballard	1	1	0	Mr. J. Penn Harris	2	2	0
Dr. W. Banks	1	1	0	Sir W. Jenner (second			
Dr. J. Beddoe	1	1	0	contribution)	3	3	0
Dr. R. Boxall	1	1	0	Mr. Morris Lewis	1	1	0
Mr. C. J. Bond	0	10	6	Mr. H. Littlewood	1	1	0
Mr. W. Cadge	1	1	0	Dr. W. H. Paine	1	1	0
Dr. H. Colgate	2	2	0	Mr. Rushton Parker ..	1	1	0
Mr. W. H. Copley	1	1	0	Mr. Oliver Pemberton ..	1	1	0
Dr. D. A. Davies	0	10	6	Mrs. Oliver Pemberton ..	1	1	0
Dr. E. Diver	0	10	6	Sir R. Quain	5	5	0
Dr. W. McD. Ellis	1	1	0	Dr. Walter Rickards ..	2	2	0
Mr. W. H. Flower	1	1	0	Dr. P. J. Thompson	1	1	0

BRITISH INSTITUTE OF PREVENTIVE MEDICINE.

THE greatest interest is shown in medical, scientific, parliamentary, and legal circles in the deputation which is to wait upon Sir Michael Hicks-Beach, the President of the Board of Trade, at 7, Whitehall-gardens, on June 5th, at 11 A.M. The deputation will be introduced by Sir Joseph Lister, Bart., and although a few days only have elapsed since the invitations to attend have been sent out the following gentlemen, among others, have expressed their willingness to be present:—

The Duke of Westminster, K.G.
Sir Henry Acland, Bart.
Sir William Bowman, Bart.
Sir Joseph Lister, Bart.
Sir Spencer Wells, Bart.
Sir T. A. Abel.
Sir Benjamin Baker.
Sir James Crichton Browne.
Sir Frederick Bramwell.
Sir George Humphry.
Sir Lyon Playfair, M.P.
Sir William Houldsworth, M.P.
Sir Henry Roscoe, M.P.
Sir Robert Rawlinson.
Sir Edwin Saunders.
Dr. C. Allbutt.
Dr. Louis C. Parkes.
Dr. Beevor.
Mr. Bland Sutton.
Dr. James Oliver.
Dr. George Harley.
Mr. Haldane, M.P.
Professor Boyd-Dawkins.
Professor Liveing.
Dr. Marcet.
Professor Dewar.
Professor Geikie.
Dr. Jacob (Leeds).
Dr. T. Barlow.
Dr. Buzzard.
Dr. H. Charlton Bastian.
Dr. J. T. Walker.
Mr. Thiselton Dyer.
Mr. Sutton (Royal Agricultural Society).
Mr. Macnamara.
Mr. Everett Millais.
Dr. Meymott Tidy.
Professor Pemberthy.
Mr. Watson Cheyne.
Professor C. S. Roy.
Dr. Armand Ruffer.
Professor E. Ray Lankester.
Dr. A. H. Barrett.
Dr. Lauder Brunton.
Dr. Pye-Smith.
Mr. G. H. Makins
Dr. Glynn (Liverpool).
Dr. Fleming (Royal Veterinary College).
Mr. Victor Horsley.
Dr. Coupland.
Mr. D'Arcy Power.
Dr. Murray (Newcastle).
Professor J. Burdon Sanderson.
Professor G. J. Romanes.
Dr. Sidney Turner.
Professor Sidgwick.
Professor Stewart
Dr. Sherrington.
Dr. W. Hunter.
Mr. Pickering Pick.
Professor Michael Foster.
Mr. Hill (Downing College).
Dr. Sturges.
Dr. Starling.
Dr. Washbourn.
Dr. Oliver (Newcastle).
Dr. Gaskell.

The Earl of Derby, Sir William Roberts, Professor Huxley, Dr. Byrom Bramwell, Professor Sylvester, Mr. Walter Gilbey, and a number of gentlemen of eminence in medical, scientific, and Parliamentary circles, have expressed their regret at their inability to be present, and their sympathy with the objects of the institute.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5178 births and 5502 deaths were registered during the week ending May 23rd. The annual rate of mortality in these towns, which had increased in the preceding five weeks from 22·5 to 30·1 per 1000, declined again last week to 28·7. The rate was 25·9 in London and 30·8 in the twenty-seven provincial towns. During the first seven weeks of the current quarter the death-rate in the twenty-eight towns averaged 26·3 per 1000, and exceeded by 5·3 the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these towns last week were 17 in Brighton, 17·1 in Newcastle-on-Tyne, 20·7 in Nottingham, and 20·8 in Bristol; the highest rates were 43 in Bradford, 44 in Manchester, 45·2 in Halifax, and 50·4 in Oldham. The exceptionally high rates in the last-mentioned towns were due to the fatal prevalence of influenza. The deaths referred to the principal zymotic diseases, which had declined from 461 to 401 in the preceding three weeks, further fell last week to 361; they included 145 from whooping-cough, 102 from measles, 36 from diphtheria, 30 from diarrhœa, 24 from scarlet fever, 24 from "fever" (principally enteric), and not one from small-pox. The deaths from these diseases were recorded in Brighton, Norwich, Birkenhead, and Huddersfield, while they caused the highest death-rates in Leicester, Manchester, Oldham, and Portsmouth. The greatest mortality from measles occurred in Salford, Blackburn, Halifax, Hull, Bristol, and Portsmouth; and from whooping-cough in Bradford, Liverpool, Newcastle-upon-Tyne, Manchester, and Leicester. The mortality from scarlet fever and from "fever" showed no marked excess in any of the twenty-eight large towns. No death from small-pox was registered in any of these large towns last week; 31 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, but not one in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet-fever patients in the Metropolitan Asylum Hospitals at the end of the week was 927, against 911 and 924 at the end of the preceding two weeks; the patients admitted during the week were 66,

against 79 and 118 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 584 and 620 in the preceding two weeks, declined last week to 601, but exceeded by 296 the corrected weekly average. The causes of 70, or 1·3 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Wolverhampton, Sunderland, and in seven other smaller towns; the largest proportions of uncertified deaths were recorded in Liverpool, Bradford, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased from 22·1 to 24·1 per 1000 in the preceding four weeks, declined to 23·8 during the week ending May 23rd, and was 4·9 below the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 15·5 in Leith and 18·4 in Greenock to 26·5 in Glasgow and 33·1 in Paisley. The 622 deaths in these towns showed a decline of 8 from the number in the preceding week, and included 34 which were referred to measles, 24 to whooping-cough, 9 to diarrhœa, 7 to scarlet fever, 5 to diphtheria, 5 to "fever," and not one to small-pox. In all, 84 deaths resulted from these principal zymotic diseases, against 72 and 83 in the preceding two weeks. These 84 deaths were equal to an annual rate of 3·2 per 1000, which was 1·3 above the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 22 and 24 in the preceding two weeks, further rose to 34 last week, of which 13 occurred in Glasgow, 13 in Paisley, and 8 in Edinburgh. The deaths referred to whooping-cough, which had been 25 and 32 in the previous two weeks, declined again last week to 24, and included 9 in Glasgow, 6 in Edinburgh, and 6 in Dundee. The 7 fatal cases of scarlet fever exceeded by 1 the number in the preceding week; 4 occurred in Glasgow and 2 in Edinburgh. The 5 deaths from diphtheria exceeded those recorded in any recent week, and included 4 in Glasgow; and of the 5 fatal cases of "fever," 2 occurred in Greenock. The deaths referred to diseases of the respiratory organs in these towns, which had been 157 and 141 in the preceding two weeks, were 145 last week, and exceeded by 25 the number in the corresponding week of last year. The causes of 60, or nearly 10 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·4 and 25·5 per 1000 in the preceding two weeks, further declined to 20·8 during the week ending May 23rd. During the first seven weeks of the current quarter the death-rate in the city averaged 25·5 per 1000, the rate for the same period being 23 in London and 20·6 in Edinburgh. The 141 deaths in Dublin during the week under notice showed a decline of 32 from the number in the preceding week, and included 2 which were referred to whooping-cough, 2 to "fever," but not one to small-pox, measles, scarlet fever, diphtheria, or diarrhœa; in all, 4 deaths resulted from these principal zymotic diseases, against 6 and 7 in the preceding two weeks. These 4 deaths were equal to an annual rate of 0·6 per 1000, the rate from the same diseases being 1·6 in London and 3·6 in Edinburgh. The fatal cases of whooping-cough, which had been 4 and 5 in the previous two weeks, declined to 2 last week. The 2 deaths referred to "fever" exceeded those recorded in either of the preceding two weeks. The 141 deaths in Dublin last week included 24 of infants under one year of age and 43 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from the numbers recorded in recent weeks. Four inquest cases and 3 deaths from violence were registered during the week, and 49, or more than a third, of the deaths occurred in public institutions. The causes of 13, or more than 9 per cent., of the deaths last week in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major Alfred Lewer retires on retired pay (dated May 23rd, 1891).

INDIAN MEDICAL SERVICE.—*Bengal:* Deputy Surgeon-General F. Walsh, Medical Staff, has been appointed Administrative Medical Officer in Bengal, in succession to Deputy Surgeon-General Collis; Major P. L. Clowes, 8th Hussars, has resigned his appointment as Aid-de-Camp to the Commander-in-Chief, Bombay Army.—Surgeons on probation to be Surgeons, I.M.S. (dated Jan. 31st, 1891):—James Muir Crawford, John William Wolfe, Bawa Jiwan Singh, Hugh Robt. Campbell Barber, Charles Henry James, Frederick O'Kinealy, Christopher Clemons Cassidy, and Arthur William Treminhere Buist Sparks.—Surgeons to be Surgeons-Major (dated March 31st, 1891):—Francis Fredk. Perry, Pultoney William Dalzell, M.B., Stephen Little, M.D., George Hart Desmond Gimlette, M.D., Christian Bernard Hunter, and Julian Carter Carington Smith, M.B.—Surgeon G. J. H. Bell to be Resident Surgeon of the Medical College Hospital, vice Surgeon J. R. Adie.—*Bombay:* Surgeons on probation to be Surgeons, I.M.D., Bombay, (dated Jan. 31st, 1891):—Ernest Gerald Robt. Whitcombe, Frank Erskine Murray, Henry James Younger, and Baman Das Basu.—*Punjab:* Surgeons to be Surgeons-Major (dated March 31st, 1891):—Francis Frederick Perry and Stephen Little, M.D.—The retirement of Brigade Surgeon G. Massy, notified in G. G. O., is cancelled.—Surgeon-Major T. E. L. Bate, returned to duty from furlough and appointed Inspector-General of Prisons, Punjab (dated April 3rd, 1891), vice Brigade Surgeon R. Gray retired.

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Fleet Surgeon Matthew F. Ryan to the *Boadicea* when recommissioned (dated June 6th, 1891).—Staff Surgeons: R. F. Yeo to the *Tamar* (dated May 27th, 1891), and Edward Ferguson to the *Swiftsure* (dated June 8th, 1891); Charles A. Macauley to the *Thunderer*, and Edward W. Luther to the *Belleisle* (both dated May 22nd, 1891); Henry T. Cox to the *Malabar* (dated June 8th, 1891.—Surgeons: Edgar R. Dimsey to the *Boadicea* when recommissioned, and Jeremiah Stugrue to the *Fearless* when recommissioned (dated June 6th, 1891); Mr. Colin M'Callum, M.B., to be Surgeon and Agent at Elie, and Mr. John Johnstone Wilson to be Surgeon and Agent at Anstruther (both dated May 22nd, 1891); Mr. William E. St. L. Finny to be Surgeon and Agent at Baldoyle, Houth, and Sutton (dated May 21st, 1891).

VOLUNTEER CORPS.—*Artillery:* 1st London (City of London): Acting Surgeon D. T. Key to be Surgeon (dated May 23rd, 1891).—*Rifle:* 4th (Cambridge University) Volunteer Battalion, the Suffolk Regiment: Acting Surgeon J. H. Hough to be Surgeon (dated May 23rd, 1891).—2nd Volunteer Battalion, the Queen's (Royal West Surrey Regiment): Acting Surgeon T. C. Eager resigns his appointment (dated May 23rd, 1891).—1st Cadet Battalion, the Manchester Regiment: Milton Prentice Ledward, M.B., to be Acting Surgeon (dated May 23rd 1891).

Correspondence.

"Audi alteram partem."

RECONSTITUTION OF THE UNIVERSITY OF LONDON.

To the Editors of THE LANCET.

SIRS,—In rejecting the late proposed Charter for the reconstitution of the University of London, it should be understood that those who primarily organised the opposition are not hostile to arrangements for that purpose on the lines suggested by the Royal Commission. But when the Senate so profusely gave up all their duties and responsibilities to outside bodies, and yet pleased none of them except the two Royal Colleges, which gained everything they wanted, Convocation had no alternative but to act as decisively as it did. Convocation would yet gladly accept a fairly devised scheme wherein the duties and the functions of a university were retained by the Senate, even though the outside colleges in one or all faculties were arrayed against it. It would have been better had the Senate, after all the care and time they had expended on the new Charter, in the first instance boldly faced the opposition of those colleges, and relied on the coöperation and support which Convocation would have given it, provided that the

interests and duties of the University had been duly preserved. I am, Sirs, yours truly,

Cranley-place, S.W., May 25th, 1891. M. BAINES, M.D. Lond.

*** Dr. Baines will see from our remarks in another column that the question will now come before the Privy Council without waiting for any other scheme which may be proposed by the University of London.—ED. L.

THE PRELIMINARY KNOWLEDGE OF MEDICAL STUDENTS.

To the Editors of THE LANCET.

SIRS,—As you say in your leading article in this week's issue, the present standard of preliminary education is far too low, and it is much to be hoped that the Medical Council will direct its serious attention to this fact, especially as the military authorities have gone so far as to call its notice to the marked want of orthographical knowledge displayed by some qualified men. If the information given in the last Students' Number of THE LANCET be correct—and I have no reason to doubt its entire accuracy,—the preliminary knowledge required from medical students is far smaller here than in any other country in Europe, now that the *officiat* has been abolished in France. It is simply disgraceful that in such a matter we should be behind Spain and Portugal. I suppose it is hopeless to expect that the Council should enact that all students must be graduates in arts or science of some respectable university. If it were to do so, it would raise the status of the profession—educationally at least, and probably also socially too—to the level above that occupied by the Church and the Bar, and would do much to arrest the present unseemly practices so generally deplored by all right-minded members of the profession which are so difficult to deal with by legislation directed against them. If such a standard is too high to be thought of just yet, surely it might be decreed that a university "little go," or an examination accepted instead by universities such as the senior certificate of the Oxford and Cambridge Schools Examination Board, should be required. That would ensure either a university or a public school education. I am, Sirs, yours truly,

Woolwich, May 23rd, 1891. THEODORE MAXWELL.

SEQUEL TO A CASE OF ABDOMINAL SECTION.

To the Editors of THE LANCET.

SIRS,—Dr. Malins is mistaken in supposing that I attempted any explanation of his facts. My only comment was that the days of miracles were fortunately not past. Here is a statement of my facts, and I am perfectly ready to substantiate them.

E. M——, a girl of twenty, came to me on Jan. 22nd, 1885, she and her mother asserting that her left ovary and tube had been removed on July 24th, 1885, by Dr. Malins at the General Hospital. She had the usual abdominal scar. If such an operation had not been performed upon her, how could I for a moment imagine that she and her mother could get so vividly impressed with the idea as to come to me and state that the pain which had formerly existed on the left side had been cured by the operation, and had returned on the right—a very common result of unilateral operations, and completely consistent with the patient's statements? They expressed a strong desire to have the other set of appendages removed, and I admitted the girl for the purpose. I wrote to Dr. Malins on the 23rd, asking him for the particulars of the operation he performed. My letter came back *unopened* and *unread*, enclosed in another envelope. I operated on the 26th (though Dr. Malins will have it that I operated on the 22nd), and my account of the operation is fully confirmed by Mr. J. W. Taylor, who was then my assistant, in his letter in THE LANCET of to-day, except in the unimportant incident of the removal of the knot. But the removal of the knot in this case is well remembered by others who saw it done, and Mr. Taylor's notes are in error in this matter, as I could very easily show in his own handwriting if it were necessary. For the second time I wrote to Dr. Malins on Jan. 30th, and I received a reply from some subsidiary and irresponsible officer of the General Hospital. To this gentleman I wrote on Feb. 2nd, and again on Feb. 4th, to the effect that his communication did not convey to me the information required, but to neither of these letters did I receive any reply. I then applied to the committee of the hospital for access to the records of the case, and this I succeeded in getting after much trouble in September, 1885. To my amazement I saw there a statement that nothing had been removed from the patient, and from the characters of the entry I had no doubt that its origin was of much later date than that of the operation. If this is the kind of statement of case which Dr. Malins likes to have brought up against him, he is welcome to it, but I cannot say I admire his judgment. For my own part I have to say that whether this case is an example of miracle or mistake, the merit in either case must rest with Dr. Malins. The real trouble about the letter to the governors of the General Hospital, which has so much, apparently, exercised Dr. Malins' mind, arose out of the fact that in 1884 the authorities of the Queen's Hospital stopped the performance of abdominal sections at that institution on account of the high mortality. Discussion in private was taking place about the necessity of doing the same thing at the General Hospital when Dr. Malins published an article in your own journal in which occurred the following sentence (THE LANCET, Nov. 1st, 1884):—"The majority of the [twenty-five] cases were done in the General Hospital under the conditions expressed in the record of the previous series. The amount of success justifies the conclusion then drawn, that abdominal sections may be successfully performed in any institution with proper precautions and care." It then became necessary to go into the whole question, and to show, as was shown in that letter, that the general mortality of abdominal sections performed in the General Hospital was between 20 and 30 per cent., and that of thirty-five ovariotomies 11 had died, giving a mortality like that of the old days of the clamp, of 32 2 per cent. As Dr. Malins very aptly says, "I will leave your readers to draw their own conclusions."

I am, Sirs, yours truly,

Birmingham, May 23rd, 1891. LAWSON TAIT.

THE INFLUENZA.

To the Editors of THE LANCET.

SIRS,—I have observed several times of late in persons who had suffered from the so-called Russian influenza in the epidemic of 1889-90 a train of symptoms which suggest to my mind a second attack of the complaint, of an incomplete or abortive kind. At any rate, they seem to point to something more than a mere coincidence. I have taken notes of five cases in all. In general the earliest and leading symptom is giddiness, not by any means of an intense nature but sufficiently uncomfortable, the patient usually complaining that the ground seems to heave under his feet as he walks. The giddiness is most marked when he commences to walk after sitting for some time, and is generally absent when he is sitting or lying down. Other symptoms, more or less pronounced in character, and given as far as possible in order of frequency, are: lassitude, sometimes with slight muscular tremors, especially referred to the knees; drowsiness, heaviness, and dull aching of the eyes; depression of spirits; lumbar pain; constipation; slightly furred tongue; perhaps anorexia. In most of my cases the urine was high-coloured, and in some urates were deposited, but in other respects it was normal. One patient, a gentleman aged forty-one, after having ailed for nearly a week, had a syncopal attack; his heart seemed perfectly sound, and he had never fainted before in his life. None of the patients had elevation of temperature (in two it was subnormal), or acceleration of pulse, rigors, pains in limbs, marked headache, respiratory or pulmonary complications, and in no case did one feel bad enough to lie up. I was mostly consulted for supposed liver derangement after the symptoms had been hanging about for several days, but in almost every case the patient informed me he had never before been troubled with his liver. The indisposition generally lasted from five to fourteen days or more, and though a trivial one, yet it seemed an odd coincidence that each patient should have suffered months before from epidemic influenza. In treatment I seemed to get some good results from a blue pill and seidlitz powder, followed by a mixture containing quinine, strychnine, and nitro-hydrochloric acid.

I am, Sirs, yours obediently,

E. G. YOUNGER, M.D., M.R.C.P.

Great James-street, Bedford row, May 26th, 1891.

PRIMARY HÆMORRHAGE INTO THE SPINAL CORD.

To the Editors of THE LANCET.

SIRS,—I am prompted by reading in your issue of the 23rd inst. the report of a lecture by Dr. Sharkey on "Primary Hæmorrhage into the Spinal Cord," in which he speaks of it as a very rare disease, to send you the following brief note. In discussing its etiology, he mentions sudden hyperæmia as probably "the effective cause in sudden alterations of atmospheric pressure, such as occur in the case of divers." Such a case came quite recently under my notice. On May 14th W. P——, aged twenty-eight, a petty officer in the Royal Navy, of remarkably fine physique and healthy appearance, was engaged in passing through a course of instruction in diving. The course had lasted for six weeks, and he was making his last dive at a depth of between twenty and twenty-one fathoms. He had been down at the bottom for some ten minutes, when he was signalled to return to the surface. The officer in charge, observing that he was coming up much too quickly, tried to check him, but in vain; he reached the surface, ascending over 120 ft. in a minute and a half. When remonstrated with he said, laughingly, that he was all right, and that as it was his last dip he wanted to see what sensation was produced by coming up rapidly. After taking off the helmet he complained of a pain in the stomach and of numbness of the legs. Finding that this numbness still continued he had the dress taken off and went on board an old hulk to walk up and down, and rub himself in order, as he said, to "restore the circulation." After the lapse of more than an hour he found himself worse and was brought on board this ship, when he was seen by me. I found him suffering from paraplegia from the waist downwards. He was quite unable to stand, but could move his legs easily when lying down. Sensation was much impaired, but he could feel a pin. It amounted to a feeling of numbness. The plantar reflex was increased. The pulse was 111, and there was no headache. Hæmorrhage into the spinal meninges was diagnosed, and he was sent to hospital. He passed then from under my care. The paralysis gradually spread upwards, and death occurred on the sixth day. At the necropsy the diagnosis was confirmed. The cause of this hæmorrhage was without doubt due to the sudden alteration in the atmospheric pressure, due time not having been allowed, by a slow ascent, for the proper equilibrium between the intra- and extra-vascular pressure to be established, and as a consequence capillary rupture ensued. The atmospheric pressure at 120 feet is over 52 lb. to the square inch, which will give some idea of the enormous pressure suddenly thrown upon the vascular system.

I am, Sirs, yours truly,
HERBERT M. ELLIS,
H.M.S. *Cambridge*, May 25th, 1891. Fleet Surgeon, Royal Navy.

A TRIBUTE TO SURGEON PARKE.

To the Editors of THE LANCET.

SIRS,—If ever the Albert medal was deserved it is in the case of Dr. T. H. Parke. The story reported by Captain Stairs, and it is a pity Captain Stairs has not told the tale long before this, is one of almost incredible bravery and unselfishness. Although during the Stanley Expedition at very death's door from remittent bilious fever of fifteen days' duration, Dr. Parke crawled to the hut of a black chief in order to render him surgical relief. It would have been a glorious act of self-sacrifice if Dr. Parke had done this for a fellow Englishman, but to have done it for a black man makes the act, I am sure, one which has never been surpassed. I trust, Sirs, that you will use your influence to ensure the reward of the Albert Medal to this great hero, and may most of us be present at its bestowal.

I am, Sirs, yours faithfully,
Canterbury, May 24th, 1891. PUGIN THORNTON.

"LIFE ASSURANCE WITHOUT MEDICAL EXAMINATION."

To the Editors of THE LANCET.

SIRS,—In your issue of the 9th inst. you made mention of the accounts of this company up to Dec. 31st last, and you referred, in particular, to the amount of the claims paid in 1890 as compared with 1889, suggesting that an abnormal increase in claims took place last year. I am instructed by my directors to point out to you that in comparing our revenue account for the year 1890 with the revenue account for the year 1889 you are comparing two different things. The account for the year 1889 shows the claims before the business of the "Scottish Provincial" Company was on Jan. 31st, 1890, transferred to us; while the account for the year 1890 includes not only "North British and Mercantile" claims, but also claims under "Scottish Provincial" policies during eleven months of that year. If the amount of these "Scottish Provincial" claims—viz., £124,000—be deducted from the total in our account, it is seen that the amount paid under "North British and Mercantile" policies is £335,000 odd, a sum approximating closely to the totals for the years 1888 and 1889, and presenting no abnormal feature. The claims under Civil Service policies, embraced in our account for 1890, amount to £3400. As the statement which you have made is calculated to mislead the public, it is hoped that you will publish this letter in your next impression.

I am, Sirs, your obedient servant,
HENRY COCKBURN, Manager and Actuary.
North British and Mercantile Insurance Office, 61, Threadneedle-street, London, E.C., May 22nd, 1891.

POLLOCK AND BELLAMY MEMORIAL FUND.

To the Editors of THE LANCET.

SIRS,—Will you be so good as to give me space in your columns to acknowledge the subscriptions to the Pollock and Bellamy Memorial Fund, as per list enclosed? Allow me to thank you for the very kind notice of the meeting of the subscribers to this fund which you inserted in your issue of last week. I am, Sirs, yours faithfully,
134, Harley-street, W., May 27th, 1891. STANLEY BOYD.

FIRST LIST OF SUBSCRIBERS.

	£	s.	d.		£	s.	d.
J. M. Ackland (promised)	5	5	0	A. H. Leech (promised)	2	2	0
R. C. Ackland	2	2	0	John Lynes	1	0	0
W. R. Ackland	2	2	0	Rev. — Macarthy	1	1	0
Richard Barwell	1	1	0	John Marriott	2	2	0
R. F. Bate	1	1	0	Dr. F. W. Mott	1	1	0
G. Gibson Berkley	1	1	0	Dr. H. M. Murray	1	1	0
Cornelius Biddle	1	1	0	Dr. Ed. J. Nix	3	3	0
T. P. Borrett	1	1	0	Dr. A. W. Orwin	1	1	0
Stanley Boyd	5	5	0	W. Henry Pearce	2	2	0
Dr. J. Mitchell Bruce	5	5	0	Stephen Thos. Phillips	1	1	0
A. W. Cooke	1	0	0	J. Francis Pink	1	1	0
Rev. — Cumberlege	2	2	0	W. Rathven Pym	2	0	0
Arthur Dodson	1	1	0	A. E. Reade	1	1	0
R. C. Driver	2	2	0	Dr. Armand Routh	2	2	0
John E. Fairbank	5	5	0	Dr J. G. Victor Sapp	1	1	0
E. Farr	1	1	0	Sister Frances	1	1	0
Harold Gardner	1	1	0	Henry Skelton	1	1	0
E. Gee	1	1	0	B. Wilfred Thomas	1	1	0
Miss Gordon	1	1	0	James Turton	1	1	0
G. O. Grenfell	1	1	0	W. M. Turner	1	1	0
Ed. T. Gregory	1	1	0	Herbert F. Waterhouse	1	1	0
W. Halley	1	1	0	H. R Whitehead	1	1	0
S. G. F. Harris } C. Harris }	1	1	0	C. Wigan	2	2	0
				Dr. Fredk. Willcocks	1	1	0
H. A. Hooten	1	1	0	C. J. Woollett	1	1	0
S. F. Larcombe	1	1	0	S. Wyborn (promised)	1	1	0

Other smaller sums making the total up to £99 7 6

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The late Mr. T. H. Bartleet.

IT is proposed to found some memorial of the late Mr. Bartleet in recognition of his twenty-four years' service as Surgeon to the General Hospital, and in memory of the many high personal qualities and public spirit he exhibited. The subscription is limited to three guineas. It is not decided as to the form which the memorial shall take; many of his friends, looking upon his connexion with the hospital as the paramount one in his life, are anxious that a stained glass window should be erected in the new hospital. This would adorn the building, and would be a pleasant as well as fitting tribute.

The Vacant Post.

The lamented death of Mr. Bartleet creates a vacancy on the surgical staff of the General Hospital. At present there

are two candidates before the electors—Mr. Gilbert Barling, M.B., F.R.C.S., and Mr. W. F. Haslam, F.R.C.S. Both of these gentlemen are at present assistant surgeons to the Institution. The election will take place on June 4th.

The Influenza Epidemic.

The virulence of this epidemic shows at present no signs of abatement in this district. A number of medical men have been attacked. Nurses are very scarce, and many public offices are far short of their full complement. The advent of fine weather would be hailed with gratification as the probable means of restoring the equilibrium of health and diminishing the death-rate. Genial sunshine and dry air would form important adjuncts to therapeutics, and would materially add to the spirits of those oppressed or threatened with this dire scourge.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Influenza in the North of England.

IN the Ripon and Malton district and the villages about Richmond the influenza prevails to a large extent. At Ripon, the family and household of the bishop of the diocese (with the exception of his lordship and Mrs. Carpenter) have all been seized with the malady. Service at the palace was abandoned on Sunday last in consequence, and the ordination arranged to take place there this week will be held at the deanery instead of its usual place.

Newcastle Boys' Seaside Summer Camp.

The annual meeting of this useful association has been held under the presidency of the Mayor. The annual report showed that the society had worked well last summer, and had been the means of giving a healthful and invigorating holiday to 166 boys of Newcastle and eighty-five of Gateshead, being an increase of seventy-nine on the total of the summer of 1889. It was decided that the camp should be opened for the season on May 20th, but it is to be hoped that the first batch of boys have been selected from the hardiest, as this month, so far, has been exceptionally severe, even for north-eastern boys. The Mayor spoke of the work in the highest terms, and hoped that before long it would be practical to establish a permanent home at the seaside, a step which would be most desirable considering the fickle nature of our climate. Much credit is due to Mr. John Burdon, surgeon, and the others associated with him, for bringing this useful society to its present state of efficiency.

The late Mr. John Hancock, Naturalist.

At the anniversary meeting of the Tyneside Naturalists' Field Club held last week, at which Dr. G. S. Brady, F.R.S., presided, an address by the President, Canon Tristram, was read, in which fitting reference was made to the valuable work accomplished by the late Mr. John Hancock in his lifetime. He claimed for them some permanent recognition, and suggested an annual medal for the encouragement of the study of natural history. I hope this may be carried out. Meantime a strong incentive to the young naturalist may be seen in John Hancock's own work in the Natural History Society's Museum in this city.

Death of Dr. McCuaig.

Dr. McCuaig of Middlesbrough died at his residence there on Friday last of pneumonia, which supervened on typhoid fever, with which he was attacked about three weeks ago. Dr. McCuaig was a prominent practitioner in the town, and held the posts of police surgeon and consulting physician to the North Riding Infirmary. He was a native of Edinburgh, where he studied and graduated. He came to Middlesbrough about thirty years ago as a partner with the late Dr. Craster. Dr. McCuaig was an enthusiastic golfer, and was at one time the finest golf player in the north of England, and was a man of remarkably fine physique. His death in his fifty-third year was unexpected. His loss is much regretted by the public, and much sympathy is felt for his family, consisting of his widow, two sons, and a daughter.

Sunderland and Sedgefield Asylum.

The Durham County Council have officially informed the authorities at Sunderland that they can receive no more lunatics at the County Asylum, which is already much overcrowded. The Local Government Commissioners have been asked to appraise Sunderland's share in the Sedgefield institution, and their award is expected next week.

A Generous Donor to the Poor.

By the will of the late Mr. Robert Watson of Bishop Auckland, £400 has been left to the poor of Bishop Auckland and neighbouring towns, payable over a period of years. The first payment has been made as directed, with an additional £10 to the inmates of the Auckland Workhouse. The deceased was a native of the district, but spent a large portion of his life in America, where he amassed considerable wealth. About nine months before his death he erected a colossal monument in Auckland Cemetery to himself.

York: Attack of a Patient on a Nurse.

A patient at the York County Hospital, while being attended to by a nurse on Friday last, suddenly drew a pocket-knife and inflicted a severe wound in her eye, which it is feared may result in the loss of sight. He was charged with the offence at the police-court before the Lord Mayor, and made a rambling statement, showing that he is probably insane, as he was under the delusion that the attendants at the hospital wanted to destroy his life by poison.

The New Archbishop of York.

A correspondent of the *Newcastle Chronicle*, in giving some notes about the family of the newly appointed Archbishop of York, mentions that his father in early life served as an army surgeon in the Peninsular War, but while comparatively young he settled in Edinburgh as a physician, and died so recently as 1865. Dr. John Brown, the author of "Rab and his Friends," characterised him as "this good old man who never made an enemy and never lost a friend, the valued family doctor and friend, the public-hearted citizen, the genial companion of Edinburgh's best men for fifty years." Dr. Maclagan's family consisted of seven sons, of whom three are prominent medical men—viz., Douglas (now Sir Douglas), Professor of Medical Jurisprudence in the University of Edinburgh; Philip, medical practitioner in Berwick-on-Tweed; and James McGregor, long medical officer of health for the Hexham district, near Newcastle.

I hear that a severe outbreak of influenza has occurred at the Whitehaven Union Workhouse, and that many of the inmates are seriously ill. The house is being fumigated with sulphur.

Newcastle-on-Tyne, May 27th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Sir Joseph Lister, Bart., in Edinburgh.

ON Friday of last week an interesting ceremony took place in Edinburgh. Sir Joseph Lister had been awarded the Cameron Prize by the University. This prize is given for any important advance in therapeutics, and is not confined to *alumni* of the University. As the holder of this prize Sir Joseph Lister delivered a short lecture in the Synod Hall to a large audience of students and members of the General Council, while the platform was occupied by the Principal, Sir William Muir, and the members of the University Court, professors, and most of the teaching staff in the School of Medicine, and others, most of whom were in academic costume. Sir Joseph Lister met with a most enthusiastic reception. He named his theme "A Lesson in Antiseptic Surgery," and his remarks were based upon a case which occurred in his hospital practice recently. He had come to the conclusion that operation cases would heal without suppuration without the application of antiseptics, if it could be guaranteed that no deleterious matter should be introduced by the hands or instruments or dressings. Proceeding on this view, he obtained the results he anticipated in a case of ligature of the external femoral; thereafter he treated a case of excision of the mamma in a similar fashion, but in a few days erysipelas supervened. This was the first case of erysipelas which had originated in his hands for about twelve years, and the question arose, how had it arisen? It was discovered on investigation that the nurse who had handed the sponges at the operation had been the

nurse who had been set apart to attend to a case of erysipelas which had been admitted into the general ward for lack of accommodation elsewhere. A streptococcus, which doubtless was the streptococcus erysipelatosus, had been cultivated by Dr. Crookshank from this case, and he had also experimented, at the request of the lecturer, on the influence of mercurial antiseptic solutions on this organism, and it was found that the organism was killed by a much weaker solution than they had previously been using to irrigate wounds with after operation. The organism was really killed; it was not that its growth was simply inhibited, this being proved by making the mercurial salt inert by adding sulphide of ammonium, and after this the organism not developing. From this he contended that if he had washed the raw surfaces, as had been his wont of late, the organism would have been killed. If it were possible to ensure at every point that no deleterious matters were introduced to a wound, antiseptics might be dispensed with as direct applications to the surface; but as this was practically impossible, he considered it essential to irrigate the surface after operation. The great complaint of the lecturer's audience was that the address was too short. More especially was this the complaint of the students, who had expected, and hoped for, a longer dissertation, reviewing the modifications in his methods which had taken place since he occupied the chair of Clinical Surgery in the University. To most of them this was the first opportunity they had had of seeing and hearing Sir Joseph Lister, and they would gladly have listened to a historical *résumé* of the subject from him.

Health of Edinburgh.

The mortality last week was 111, and the death-rate 21 per 1000. Diseases of the chest caused 44 deaths, and zymotic diseases 18, of which 8 were due to measles and 6 to whooping-cough. The intimations for the week were:—Typhoid fever 6, diphtheria 3, scarlatina 13, and measles 64. The mortality in Leith last week was at the rate of 18·40 per 1000.

Medico-Chirurgical Society of Glasgow.

At the annual general meeting of the Society, held on the evening of the 8th inst., the following gentlemen were elected office-bearers for the Session 1891–92:—President, Dr. Joseph Coats. Section of Medicine—Vice-President, Dr. S. Gemmell; Councillors, Dr. Robert Pollok and Dr. Alex. Miller; Secretary, Dr. Geo. S. Middleton. Section of Surgery—Vice-President, Dr. Hector C. Cameron; Councillors, Dr. James Paton and Dr. D. Macartney; Secretary, Dr. John Barlow. Section of Pathology—Vice-President, Dr. J. L. Steven; Councillors, Dr. A. Milroy and Dr. R. M. Buchanan; Secretary, Dr. T. K. Dalziel. Section of Obstetrics—Vice-President, Dr. S. Sloan; Councillors, Dr. J. K. Kelly and Dr. M. Cameron. Secretary, Dr. Lawrence Oliphant; Treasurer, Mr. Henry E. Clark; General Secretary, Dr. Walker Downie.

Fire at the Royal Lunatic Asylum, Glasgow.

A few days ago a fire broke out at the Glasgow Royal Lunatic Asylum, situated about three miles from the centre of the city. A steamer was despatched to the scene from the central fire station, and the flames were speedily extinguished. The fire was confined to the north-west dormitory of the eastern section, and the roof and upper storey were destroyed. Fortunately the female patients were not in the dormitory at the time.

May 6th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons.

As I contemplated, Mr. Croly will be re-elected President without opposition at the annual elections of President, Vice-President, Secretary, and Council which will take place on Monday next, June 1st. For the Vice-Presidency there will be three candidates—Mr. Carte, the outgoing Vice-President, Mr. Stack, and Dr. Cranny. For nineteen members of Council eighteen go up for re-election, and the following additional candidates also seek a seat—viz., Messrs. W. Stoker, R. D. Purefoy, John Lentaigne, Edward Thompson, and R. T. O'Callaghan, the last two named being provincial Fellows. Complaints have been made by the provincial Fellows for some years of their exclusion from the Council of the College, but if they (the provincial Fellows) had a little more energy and were united among themselves, which they are not, they would have no difficulty in placing four of their body—one for each province—on the Council. By choosing delegates from each county and working the matter up properly, selecting the best men and avoiding all clashing of individual interests, success would be certain; but they should not rely on the support of the town Fellows, who as a body will not vote for country candidates for Council. A correspondent has stated that Mr. Kelly of Drogheda will be a candidate on this occasion, but this is a mistake, as that gentleman's name is not on the list of candidates. It is, however, a subject of regret that he is not competing this year, inasmuch as he obtained last year 105 votes, or an increase of thirty-four over the previous year, and probably might have been elected on this occasion. The annual meeting of the Fellows, to receive the annual report of the Council, will be held on Saturday, 30th inst.; and in the evening the Fellows, Professors, and Examiners will dine together in the College.

University of Dublin.

The tercentenary of this University will take place next year, and it has been decided by the College authorities to celebrate the auspicious occasion in the week commencing July 4th, 1892. About 200 distinguished guests, representing 100 foreign universities, are expected to take part in the celebration. It is proposed to found one or more scholarships in the divinity school, to be called "The Magee Theological Scholarships," in memory of the late Archbishop of York. I believe the following is a correct list of the candidates for the Regius Professor of Surgery, the nomination for which will take place by the Council on the 5th inst.:—Mr. C. B. Ball, surgeon to Sir P. Dun's Hospital; Sir George H. Porter, Bart., surgeon to Her Majesty; Sir William Stokes, Professor of Surgery, Royal College of Surgeons; Mr. Edward Hamilton, Professor of Surgery, Royal College of Surgeons, and surgeon to the Lord-Lieutenant; and Mr. W. J. Wheeler, ex-President, Royal College of Surgeons.

Royal University of Ireland.

A meeting of the Senate was held last week, when the Right Hon. Lord Emly was re-elected Vice-Chancellor of the University, and the following were re-elected as Medical Fellows of the University:—Dr. J. J. Charles, Dr. C. P. Coppinger, Dr. P. J. Hayes, Dr. J. P. Pye, and Dr. P. Redfern. The Senate adopted petitions to Parliament praying that medical officers of health in large towns should be required to devote their whole time to the proper discharge of the duties of their office; and that in any amendment of the present Factory and Workshops Act care should be taken that the safeguard at present existing requiring the certificate of a proper medical officer of the fitness of a child for employment shall not be abrogated.

Poisoning from Oxalic Acid.

A commercial traveller during a fit of temporary insanity swallowed a quantity of oxalic acid last Wednesday, and was admitted to Jervis-street Hospital, where he died the following day. Apparently he regretted having taken the poison, as when he reached the hospital he handed the resident surgeon a card, on which was written "Oxalic acid leaves me thus." The dose probably was not a very large one, death not taking place until the following day.

Cork South Infirmary.

A special meeting of the trustees of the institution was held on the 22nd inst., to elect an extern physician, in the room of Dr. W. J. Cummins, who had resigned after a service of nearly twenty years. There were three candidates but two having withdrawn, Dr. Cremen was unanimously elected.

Several cases of influenza have appeared of late in Dublin and suburbs, but the disease so far has not been very fatal.

Dublin, May 26th.

PARIS.

(FROM OUR OWN CORRESPONDENTS.)

Origin and Rôle of Pus Cells.

PROFESSOR RANVIER made an interesting communication at a recent meeting of the Academy of Sciences on the origin and signification of pus cells. He said that for some years

past histologists generally were agreed that the cells of pus were none other than the white corpuscles of the blood, which had emigrated from the vessels at the time suppuration was set up. He found it difficult, however, to believe that the blood could yield in this way, and in a time comparatively short, the enormous quantity of pus found in many pathological conditions, such, for example, as the purulent infection of wounds, accidental and operative. That the white cells do emigrate in the manner generally accepted he had no doubt. This takes place under normal physiological conditions, while it is still more pronounced in certain pathological states not ending in actual inflammation, in the process of which it is of course abundantly evident. What his experiments led him to establish, however, was that pus cells had also quite another origin—viz., the transformation into lymph cells of claamatocytes, elements derived from migratory cells, which under the influence of irritation revert to an embryonic condition and proliferate rapidly. As to the *rôle* of the pus cells, M. Metchnikoff has shown the importance of lymphatic cells in the combat of the organism against microbes. In simple inflammation determined by caustics, or other irritant agents, their *rôle* is not less important. They eliminate the dead elements, and thus prepare the way for the processes of regeneration.

"Typhoid Pleurisy."

At the last meeting of the Medical Society M. Fernet read the notes of a case of pleurisy with effusion in which was found in abundance the bacillus of Eberth. The patient was a young man of eighteen, who manifested in addition to pleuritic symptoms the general signs of enteric fever except the rose spots. The history revealed that the pleuritic symptoms had existed for two months anterior to admission to treatment for typhoid fever symptoms, and from this it might appear that the typhoid fever was contracted subsequently to the pleuritic attack, and that the bacillus of the former had found its way to the pleural cavity, already in a state of inflammation. M. Fernet, while admitting that the establishing of the true sequence was a difficult matter, was of opinion that the most plausible explanation was that the pleurisy was the antecedent manifestation of the typhoid fever, and that, like the latter, it was set up by the bacillus of Eberth. One could hardly generalise from a single case; but if other similar ones should be recorded there might be warrant for creating a new subdivision of pleuritic affections under the name of "typhoid pleurisy."

Cæsarean Section by an Unqualified Person.

Condemnations for illegally practising medicine amongst the living are of frequent occurrence in this country. Can, however, an unqualified person who performs an operation on a dead body be held to have illegally practised? Odd as this point of law may appear, it was recently submitted to the local tribunal of Espalion, which decided the question in the affirmative. The curious circumstances under which the operation was performed were as follows. A woman, pregnant and at about full term, died from causes which, I gather, were not associated with her pregnancy. The parish clergyman and a neighbour were present at the death scene, when the latter, encouraged and persuaded by the former, undertook the Cæsarean section in order to save the child. The operation was quickly, albeit roughly, done, and with the happiest results so far as the child was concerned. The operator was, however, indicted before the local Correctional Court and fined fifteen francs for illegally practising medicine. The law as interpreted by the lawyers would appear clear enough on the point, but as interpreted by the medical press leaves latitude for a second opinion.

Curious Violation of Professional Secrecy.

The Municipal Council of Paris had recently brought under its notice a curious violation of what is laid great stress on in this country—viz., professional secrecy. The Administration sold as waste paper several large bundles of medical reports, dating from 1873, containing the official notification of the demise of people whose names, diseases, and concerning whom other details of a private nature were given. The retail dealers in certain quarters bought the waste paper and used it to wrap up their wares in when disposed of to the public, who had thus ascertained particulars about the immediate ancestors of their neighbours by no means desired by the latter. The Prefect of the Seine being appealed to decided that for the future the documents in question should be destroyed and not sold.

The Influenza.

While London and England generally are being visited by a severe epidemic of this many-sided affection, Paris is comparatively free from it. It is reported, however, from Alsace that the disease is visiting in a severe form the town of Uttweiler. It is added that there is hardly a house in the town which has not been visited by the epidemic, and that a very large percentage of the patients has succumbed.

Paris, May 21st.

Obituary.

JOSHUA SOUTHWOOD, M.D. ST. AND., F.R.C.S., &c.

WE have to record the death, at the advanced age of eighty-one, of Dr. Southwood, who for more than half a century—viz, for fifty-two years—held the post of resident medical officer at the Metropolitan Dispensary, Cripplegate, City. He died on May 20th, after a few days' illness, from the prevailing complaint, influenza. Dr. Southwood was educated at Guy's Hospital, and took his first qualification to practise at the Apothecaries' Hall in 1834, while in 1839 he received the appointment to the post he occupied for so many years. Even before this he was connected with the City, having been apprenticed to one of the medical officers to the City Dispensary. Dr. Southwood retained his health and activity up to a few days before his death, and his memory was unimpaired; his recollections of the old style of surgical practice in pre-chloroform days, of the various cholera epidemics, and of the peculiar characteristics of the consultants of the past generation were most interesting. At one time he carried on a large private practice, but during the past few years had relinquished it. The great respect in which he was held was shown by the large attendance not only of the committee of the dispensary and of his medical colleagues, but also of the poor of the neighbourhood, at the funeral service at St. Giles's, Cripplegate, on Saturday last. Dr. Southwood was never married.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 21st inst. the degrees of Bachelor of Medicine and Bachelor of Surgery were conferred on

Ernest John Drum Mitchell, Gonville and Caius.

At the Third Examination (Part II.) for Medical and Surgical Degrees, held at Easter Term, 1891, the following gentlemen were examined and approved:—

Abram, B.A., Caius.
Anderson, H. K., B.A., Caius.
Beaumont, W. H., B.A., Downing.
Bennetts, B.A., Caius.
Calthrop, G., B.A., Caius.
Carruthers, B.A., Christ's.
Carter, B.A., Pembroke.
Colclough, B.A., Caius.
Colvin-Smith, B.A., Caius.
Crosby, B.A., Caius.
Devereux, B.A., Selwyn Hostel.
Dumbleton, M.A., Peterhouse.
Earl, M.A., Cavendish Hostel.
Felce, B.A., Jesus.
Fisher, B.A., Cavendish Hostel.
Gimson, B.A., Cavendish Hostel.
Gornall, B.A., Catharine.
Hall, R. H., B.A., Pembroke.
Head, Trinity.
Latter, B.A., Pembroke.
Lea, J., B.A., Caius.
Lewis, S., B.A., John's.
Low, B.A., Clare.
Morris, B.A., Trinity.
Palmer, B.A., Downing.
Pethick, B.A., Downing.
Phear, B.A., Trinity.
Richards, B.A., Downing.
Richardson, M.A., Caius.
Roberts, M.A., Cavendish Hostel.
Rowland, B.A., Caius.
Savory, B.A., Cavendish Hostel.
Smith, A. H., B.A., King's.
Surridge, B.A., Caius.
Thompson, A. H., M.A., Trinity.
Watts, B.A., John's.
West, B.A., John's.
Wilks, B.A., Caius.

UNIVERSITY OF LONDON.—The following candidates passed in the respective divisions at the May examinations for the Pass M.B.:—

First Division.—Frank George Bushnell, Douglas Richard Green, John George Hewitson, Richard Gundry Rows, and John Alfred Waring, University College; Charles Coles and Llewelyn Roberts, St. Bartholomew's Hospital; John Norton Collins, London Hospital; Arthur Colborne Lankester, St. Thomas's Hospital; Florence G. Longbottom, London School of Medicine for Women; Cyril Gordon Mack, St. Mary's Hospital; and William Gusterson Rogers, Guy's Hospital.

Second Division.—Albert Edward Berry, Owens College and Manchester Royal Infirmary; George Arthur Berry, Owens College and

Middlesex Hospital; Henry Ambrose Burrowes, Liverpool Royal Infirmary; William Adams Clark, St. Bartholomew's Hospital; John Haziewood Clayton, Birmingham Medical School; Herbert Vigers Hickman, Guy's Hospital; Theodore Henry Iondes, Eric Leonard Norman Pridmore, and Walter William Hunt Tate, University College; Harold Mason, Queen's College, Queen's Hospital, and General Hospital, Birmingham; Mildred Ernestine K. Staley, London School of Medicine for Women; and Frederic Ryott Percival Taylor, Westminster Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the First Professional Examination in Anatomy and Physiology for the Diploma of Fellow at a meeting of the Board of Examiners on the 18th inst.:—

Alexander G. R. Foulerton, M.R.C.S., of St. Bartholomew's Hospital; Clement B. Volsey, M.R.C.S., of Owens College, Manchester and St. Mary's Hospital; Frank N. Windsor, of Owens College, Manchester, and Cambridge University; Charles F. M. Ward, of Queen's College, Birmingham; Francis H. Marson, of Durham University and Queen's College, Birmingham; Wilfred Edgcombe, of University College, Liverpool; James Musgrove, M.R.C.S., of Edinburgh University; William G. Laws, of Durham and Edinburgh Universities and St. Thomas's Hospital; George Lawrence, of Cambridge University and Guy's Hospital; and John Hartley, M.R.C.S., of Middlesex Hospital. (Eleven candidates were referred.)

Passed on the 19th inst.:—

Francis H. Langlands, of Melbourne University and Middlesex Hospital; Fred-rick C. Scotson, James B. Carter, and John Stephenson, of Owens College, Manchester; Harold B. Dickinson, of University College, Liverpool; Charles W. Curtis, of Middlesex Hospital; Albert E. Martin, M.R.C.S., of Durham University and London Hospital; Arthur H. Cheatle, M.R.C.S., and William Turner, of King's College. (Eleven candidates were referred.)

Passed on the 22nd inst.:—

Edward Cotterell, M.R.C.S., of University College; Kenneth Lawson, of Middlesex Hospital; and Ernest W. Ormerod, of Cambridge University and St. Bartholomew's Hospital. (Eighteen candidates were referred.)

Passed on the 23rd inst.:—

John S. Sloane, Henry B. Maingay, and Henry S. Elworthy, of St. Bartholomew's Hospital; William F. Lucas and Francis E. Rock, of Middlesex Hospital; William J. Harris, of Cambridge University and Guy's Hospital; Charles S. Pantin, John B. Leathes, Richard H. Luce, and Daniel W. Samways, of Guy's Hospital. (Eleven candidates were referred.)

Passed on the 25th inst.:—

Henry A. D. Dickson, of St. Thomas's Hospital; Edward S. Cardell, of St. Bartholomew's Hospital; Alfred Foster, M.R.C.S., of St. Mary's Hospital; Arnold Chaning-Pearce and David M. Beddoe, of Guy's Hospital; Francis W. J. Coaker and George B. Robinson, of London Hospital. (Thirteen candidates were referred.)

103 candidates presented themselves for this examination, 39 of whom passed, and 64 referred for six months.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates passed in the subjects indicated during May:—

Surgery.—V. H. Barr, Guy's Hospital; H. B. Bates, University College, Liverpool; G. T. B. Blick, St. Mary's Hospital; T. F. Daniels, Royal Infirmary, Manchester; E. Middlebrooke, University of Iowa; H. E. Pittway, University College; W. K. Steele, Guy's Hospital; H. E. Tomlinson, Yorkshire College, Leeds; and L. Whitby, Royal Free Hospital.

Medicine, Forensic Medicine, and Midwifery.—F. G. Bullmore, St. Mary's Hospital; R. T. Cassall, University College; G. E. T. Haydon, London Hospital; R. M. Hughes, University College; W. J. C. B. Pitt, Queen's College, Birmingham; H. W. Roberts, St. George's Hospital; W. Robinson, Middlesex Hospital; H. B. Shepherd, Middlesex Hospital; H. E. Tomlinson, Yorkshire College, Leeds; E. B. Wrench, Cambridge University and St. Thomas's Hospital; W. Wright, St. Bartholomew's Hospital; and W. S. Wright, St. Mary's Hospital.

Medicine and Forensic Medicine.—T. F. Daniels, Owens College, Manchester, and R. A. Smith, Sheffield and Leeds.

Medicine and Midwifery.—J. F. Brown, Toronto University; and M. Jenkins, Guy's Hospital.

Midwifery and Forensic Medicine.—H. S. Cooper, Westminster Hospital.

Midwifery.—W. E. S. Jones, Guy's Hospital.

Forensic Medicine.—W. H. Savory, Sheffield.

To Messrs. Cooper, Haydon, Hughes, Middlebrooke, Preston, Shepherd, Tomlinson, Wrench, W. Wright, and W. S. Wright was granted the Diploma of the Society, qualifying for registration, and entitling them to practise Medicine, Surgery, and Midwifery.

OPEN SPACES.—Last week the Duchess of Albany formally opened at Surbiton, as a public recreation ground, eight acres of land, acquired on lease at a low rent from the Earl of Lovelace. It is situated between Surbiton and Thames Ditton.—The Hornsey Local Board has purchased seven acres of land on the Western side of Middle-lane, near the junction with the Priory-road, which is to be appropriated to the use of the public for recreation purposes.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The annual meeting of the Association will be held at the rooms of the Royal Medical and Chirurgical Society today (Friday), at 4 P.M. Dr. B. W. Richardson will preside. Prizes will be given to the successful students in the examination on Alcohol, after which Dr. McDowel Cosgrave will read a paper entitled Alcoholic Self-delusion.

THE CITY POLICE CELLS.—At the hearing of a charge against four young men of larceny at the Guildhall on the 14th inst., the solicitor who appeared for the defendants complained of the condition of the cells of the Moor-lane police station, which he characterised as abominable. Mr. Alderman Phillips, the presiding magistrate, promised that the matter should be inquired into.

PROPOSED COTTAGE HOSPITAL, CHIPPING NORTON.—A public meeting was held at the Town Hall on the 21st inst., to consider the steps necessary to be taken to secure Mr. Fowler's generous gift of £1000 towards the erection of a cottage hospital. The ex-mayor of the borough presided. A unanimous opinion was expressed that the gift should be accepted, and a committee, treasurer, and honorary secretaries were appointed to promote the object in view.

LONDON WATER-SUPPLY.—The Hybrid Committee appointed by the House of Commons to inquire into the Bill affecting the London water-supply resumed their meeting on Thursday for the first time since the recess. Sir Matthew White Ridley presided. The case in support of the Bill promoted by the London vestries to constitute a water trust, with power to acquire the London water undertakings, together with the Rickmansworth and Leatherhead Water Companies, was continued.

CROYDON GENERAL HOSPITAL.—At the last meeting of the committee letters were read from Dr. Strong and Dr. Adams resigning their positions as surgeons on the staff. The committee spoke in the highest terms of the services rendered by these gentlemen during a period of many years, and it was resolved that an illuminated address should be presented to each gentleman. Dr. Strong thanked the committee on behalf of himself and Dr. Adams, who was unavoidably absent. He stated that the reason for his retirement, and he might perhaps add for that of his colleague, was that, having held the position for so long a time, he felt that others well qualified to do so should have the privilege afforded them of rendering similar service.

HOSPITAL FOR SICK CHILDREN.—At the thirty-ninth annual court of the governors of the hospital, Great Ormond-street, held on Wednesday, Mr. Arthur Lucas in the chair, the report of the committee of management was presented. It expressed a hope that the friends of the hospital would contradict a prevalent rumour that the hospital had been placed in a condition of independence by the recent bequest of Mr. Barry. That bequest would produce an annual income of £1400, raising the secured income of the hospital to about £1800. The accounts for the year showed a deficit of £600. The Duke of Fife had consented to become president of the hospital. Dr. Cheadle, elected in 1875, had consented to retain his post until the opening of the new wing.

PRESENTATIONS.—Dr. Buckley Pogson, having resigned the post of resident medical officer at the Durham County Hospital, has been presented with a handsome clock as a wedding present and mark of esteem by the matron and nursing staff of that institution.—Mr. John Mackenzie, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glas., of Intake, near Sheffield, has been presented by the members of the Intake and District Ambulance Class with a marble timepiece as a slight recognition of his instructive lectures on "First Aid."—Mr. C. E. Harold West, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glas., on his resigning the house-surgeonship of the North Cambs Cottage Hospital, has been presented by the matron and nurses of the institution with a handsome silver match-box as a mark of respect and esteem; whilst Mr. Whittlesea, the porter, and his family, have made him a present of a well-finished pipe.—Surgeon-Major T. D. Buchanan, M.D., L.F.P.S. Glas., has been presented by his brother officers, on his retiring from the regiment after thirty-one years' service and the rank of lieutenant-colonel, with a gold watch and chain and the badge of the regiment.

FIRE AT THE BRISTOL INFIRMARY.—On Saturday morning last a fire broke out in the linen-room of this infirmary, but owing to the prompt and energetic action of the fire brigade and resident officers but little damage was done. No alarm was created in the wards.

WEST CORNWALL MINERS' HOSPITAL, REDRUTH.—The report for the past year bears testimony to the value of the good work done by this institution. Fifty-seven more patients were admitted than in the previous year, and the total (271) was the largest on record since the opening of the hospital. The committee were convinced that the hospital was thoroughly central for serving the ends Lord Robartes had in view when building it. Thanks were accorded to his lordship for continuing to make up the financial deficiency, which this year was £436 1*s.* 1*d.*, but less by £391 14*s.* 7*d.* than in 1889.

ROYAL MEDICAL BENEVOLENT COLLEGE.—The thirty-eighth annual meeting of the governors of this College was held on Thursday last at the office in 37, Soho-square, Dr. Holman, treasurer, in the chair. There was a fair attendance of the governors. The secretary read the report, which amongst other matters expressed the deepest regret at the death of Earl Granville, who had been for many years president of the institution. Several matters of interest were brought before the meeting, but the full report of the proceedings must be deferred until our next number.

SOCIETY FOR THE PROTECTION OF WOMEN AND CHILDREN.—Mr. F. D. Mocatta (in the absence of the Earl of Meath) presided at the annual meeting held on Monday at St. James's Hall, Piccadilly. The report pointed out the valuable assistance the Society had rendered to a class of sufferers from cruel treatment who were unable to protect themselves. In moving the adoption of the report, the Chairman remarked that the sums received and paid away in the past year amounted to £448 17*s.* 9*d.*, and during that period 492 cases had been dealt with, of which 221 had received legal assistance. The objects of the Society were worthy of the sympathy and generosity of the public.

EARLSWOOD ASYLUM FOR IDIOTS.—The forty-fourth annual festival dinner in connexion with this institution took place at the Hôtel Métropole last week. Mr. Blundell Maple, M.P., occupied the chair. The attendance was large and influential. The Chairman, in proposing the toast of the evening, stated that in Great Britain there were only five institutions which were devoted to the care of idiots. At present there were at this asylum 600 inmates received from all parts of the kingdom, and 150 applicants were seeking admission. Additional funds were needed to enable the Board of Management to deal with these candidates or some of them. Subscriptions were announced amounting to £3956.

THE FEEBLE-MINDED AND EPILEPTIC.—A special meeting of the Council of the London Charity Organisation Society was held on Monday to hear a paper read by Miss Stacey, of the Birmingham Board of Guardians, on the Poor-law provision for the care of the feeble-minded and epileptic. Mr. T. Holmes, F.R.C.S., presided. The Chairman stated that the meeting was called to promote a movement which the Council believed to be urgently needed in defence of a class of persons whom the law at present inadequately protected. Miss Stacey then read her paper, limiting her remarks chiefly to the case of feeble-minded paupers. The Secretary of the Society explained that the proposal made was for an amendment of the law, so as to enable a board of guardians to deal with the feeble-minded and epileptic in like manner as they were empowered to do in respect to the blind, deaf, and dumb. A long discussion ensued.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

AITKEN, W. B., M.B., C.M. Glasg., M.R.C.S., has been appointed Officer of Health for Jamestown, South Australia.

ANNACKER, ERNEST, M.D. Berlin, L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Manchester Royal Infirmary, vice Blore, resigned.

ANNINGSON, B., M.D. Camb., M.R.C.S., has been reappointed Medical Officer for the Rural Sanitary Districts of the Chesterton Union.

ARNISON, W. D., M.D. Dunelm, has been appointed Senior House Physician to the Royal Infirmary, Newcastle-on-Tyne, vice W. Baigent, M.D., resigned.

ATKEY, P. J., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

BEVILLE, F. W., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

BOX, C. R., B.Sc. Lond., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

BRADY, A. J., L.R.C.P., L.R.C.S. Irel., has been reappointed Honorary Senior Aural Surgeon to the Sydney Hospital, New South Wales.

BROWN, JAMES, M.B., C.M. Edin., has been appointed Medical Officer for the Aldbury District of the Berkhampstead Union.

CALVERT, W. D., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Sussex County Hospital, vice Hodgson, resigned.

CARTER, R., M.D. Aberd., M.R.C.P. Edin., has been appointed Senior Physician to the Bath Royal Mineral Water Hospital, vice Hensley, deceased.

CHAMBERS, M. W., M.R.C.S., has been reappointed Honorary Senior Obstetric Surgeon to the Sydney Hospital, New South Wales.

COBBETT, L., L.R.C.P., F.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

COLLINS, M. J., L.R.C.S. Edin., has been appointed Surgeon on the Medical Staff of the Defence Force, Queensland.

CONNOR, DANIEL, L.R.C.S., L.M. Irel., has been appointed Resident Medical Officer to the Victoria Plains District, West Australia.

DOYLE, H. M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Superintendent of the Newcastle Hospital, New South Wales, vice Hester, resigned.

EASTON, G. F., M.D., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Alnwick Rural and Urban Sanitary Districts.

EVANS, WM. GEO., F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Resident Clinical Assistant to the City of London Asylum, near Dartford, Kent.

FORDE, T. A. M., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

FORWARD, F. E., F.R.C.S., L.R.C.P., has been reappointed Non-resident Ophthalmic House Surgeon to St. Thomas's Hospital.

GOODE, W. H., M.D., M.Ch. Dub., has been reappointed Honorary Surgeon to the Sydney Hospital, New South Wales.

GRIFFITH, W. S., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

GROWSE, WILLIAM, B.A. Oxon., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer to the Convalescent Home, Kenilworth, vice Dr. Atkinson, resigned.

HARPER, J. R., L.R.C.P., M.R.C.S., has been appointed Resident Accoucheur to St. Thomas's Hospital.

HEELAS, WALTER W., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Medical Officer to the Hospital for Sick Children, Newcastle-on-Tyne.

HUXTABLE, L. R., M.B., C.M. Edin., has been reappointed Honorary Physician to the Sydney Hospital, New South Wales.

JACKSON, C. G., L.R.C.P. Irel., has been appointed Officer of Health for the District of Derby, Tasmania.

JOYNT, H. N. H., M.B., B.Ch. Dub., has been appointed Resident Medical Superintendent of the Bradford Fever Hospital, vice Evans.

KEIR, W. J., F.R.C.S., L.R.C.P. Edin., has been reappointed Medical Officer for the Melksham Rural and Urban Sanitary Districts.

KELLOCK, T. H., M.A., M.B., B.C. Cantab., L.R.C.P., F.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

LAKE, C. LEONARD, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Noble's Hospital and Dispensary, Douglas, Isle of Man, vice Dr. Miller.

LANE, HUGH, L.R.C.P. Edin., M.R.C.S., has been appointed Honorary Surgeon to the Bath Royal Mineral Water Hospital, vice Carter, resigned.

LOGIE, JAS., M.B., C.M. Aberd., has been appointed Medical Officer for the Raglan Sanitary District, Monmouth.

LOW, H., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

MARTIN, C. J., B.Sc. Lond., M.R.C.S., has been appointed Demonstrator in Physiology at the Sydney University, New South Wales.

MCALDOWIE, A. M., M.D., M.B., C.M. Aberd., has been appointed, *pro tem.*, Deputy Medical Officer for the Borough of Stoke-on-Trent.

MCCALL, A., M.B., C.M. Glasg., has been appointed Medical Officer for the Conisborough Sanitary District of the Doncaster Union, vice Hills, resigned.

MEAD, RIVIS, M.B., C.M. Edin., M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the District of Quirindi, New South Wales.

METCALFE, A. W., M.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the York Dispensary.

MORISON, JOHN, M.D. Edin., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for St. Albans, Herts.

NIHILL, J. E., M.B. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician, Melbourne Hospital, Australia.

PAYNE, J. W., M.R.C.S., has been appointed Officer of Health for Davenport, Tasmania.

PHILLIPS, A. C. H., L.R.C.P. Lond., M.R.C.S., has been appointed Surgeon on the Medical Staff of the Defence Force, Queensland.

PRICE, A. E., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

ROUILLARD, L. A. J., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

SHAW, RAYMOND H., M.B., B.S. Dunelm, has been appointed House Surgeon and Assistant Secretary to the West Herts Infirmary Hemel Hempstead, vice W. D. Arnison, M.D., resigned.

SHEPPARD, H. A., M.R.C.S., has been appointed Medical Officer for the Workhouse and the Eling District of the New Forest Union.

STILWELL, G. R. F., L.R.C.P., M.R.C.S., L.S.A., has been appointed Non-resident House Physician to St. Thomas's Hospital.

STOKES, W. G. G., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

STRANGMAN, T. H., L.R.C.S. Irel., has been appointed Government Medical and Health Officer for Port Douglas, Queensland.

SWEETNAM, F. A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Health Officer for Minhamite Shire, Victoria, Australia, vice Jackson.

TOLLER, S. G., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

UMNEY, W. F., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric Clerk to St. Thomas's Hospital.

USHER, C. H., B.A., M.B., B.C. Cantab., has been appointed Non-resident Ophthalmic House Surgeon to St. Thomas's Hospital.

VOLCKMAN, RONALD, L.R.C.P. Edin., M.R.C.S., has been appointed Public Vaccinator for the District of Rangiora, New Zealand.

WEBSTER, P. S., M.B. Dub., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Surgeon to the Victorian Eye and Ear Hospital, Melbourne, Australia.

WILKINSON, W. C., M.B., B.Ch., L.R.C.P. Irel., has been reappointed Honorary Assistant Aural Surgeon to the Sydney Hospital, New South Wales.

WINDER, A. B., M.B., C.M. Edin., has been appointed Medical Officer of Health for the Thurstonland Urban Sanitary District of the Huddersfield Union.

WOODFORDE, W. T. G., M.D. Lond., has been reappointed Medical Officer of Health for the Berkshire Combined Sanitary Districts.

WORRALL, R., M.D., M.Ch. Dub., has been reappointed Honorary Assistant Obstetric Surgeon to the Sydney Hospital, New South Wales.

WYMAN, C., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BRISTOL CITY LUNATIC ASYLUM.—Second Assistant Medical Officer. Salary £120 per annum, with furnished apartments, board (except beer, &c.), and washing.

COURT FORESTERS' ISLE, NO. 1822, AND JUVENILE SOCIETY.—Third Qualified Medical Practitioner. (Apply to the Secretary, Foresters' Hall, West Cowes, Isle of Wight.)

CUMBERLAND INFIRMARY, Carlisle.—Assistant House Surgeon for one year. Salary £40 per annum, with board, lodging, and washing.

DERBYSHIRE GENERAL INFIRMARY.—Resident Assistant House Surgeon for six months. No salary, but a bonus of £10 is given, and board and washing.

DEWSBURY AND DISTRICT GENERAL INFIRMARY.—House Surgeon. Commencing salary £80 per annum, with board and residence.

GUY'S HOSPITAL, S.E.—Five Assistant Dental Surgeons.

HALIFAX INFIRMARY AND DISPENSARY.—Assistant House Surgeon. Salary £50 per annum, with residence, board, and washing.

HULL ROYAL INFIRMARY.—Honorary Ophthalmic Surgeon.

HULL ROYAL INFIRMARY.—Four Honorary Assistant Surgeons.

QUEEN'S COLLEGE, Birmingham.—Medical Tutor and Chief Demonstrator of Anatomy.

QUEEN'S COLLEGE, Birmingham.—Demonstrator of Anatomy.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Junior House Surgeon. Salary £50 per annum, with board and residence.

R. W., care of Mr. W. Davis, Grocer, Abergavenny.—Doctor to a Medical Aid Society. £40 a year and lodgings.

ST. MARY'S HOSPITAL, Paddington, W.—Dental Surgeon for five years.

STOCKPORT INFIRMARY.—Assistant to the House Surgeon for six months. Board and residence.

SUSSEX COUNTY HOSPITAL.—Surgeon.

SUSSEX COUNTY HOSPITAL.—Assistant Surgeon. (Apply to the Secretary, Brighton.)

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician for six months. Board and lodging provided.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Surgeon for six months. Board and lodging provided.

WORCESTER AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary (without residence) £140 per annum, with a portion of midwifery fees; also £20 per annum for cab hire. (Apply to Mr. Gibson, Easy-row, Worcester.)

Births, Marriages, and Deaths.

BIRTHS.

ACKLAND.—On May 25th, 1891, at 24, Southernhay, Exeter, the wife of J. McKno Ackland, M.R.C.S., L.D.S. Eng., of a son.

ALEXANDER.—On May 22nd, at the London County Asylum, Hanwell, W., the wife of Dr. R. R. Alexander of a son.

ANDERSON.—On May 21st, at Belsize-park, N.W., the wife of Dr. Ford Anderson of a daughter.

BAINES.—On May 8th, at Toronto, Canada, R. J. Ella, the wife of A. M. Baines, M.D., L.R.C.P., of a son.

BIRT.—On May 21st, at Priory-terrace, Leamington, the wife of Stephen Birt, L.D.S. Eng., of a daughter.

HANDCOCK.—On May 22nd, at Girlington, Bradford, the wife of George Handcock, M.R.C.S., of a son.

HILLSTEAD.—On May 21st, at Upper Richmond-road, Putney, the wife of Herbert John Hillstead, M.B., of a son.

POLLARD.—On May 26th, at Queen Anne-street, Cavendish-square, W., the wife of J. Pollard, M.R.C.S., prematurely, of a son, who only survived a few hours.

SCOTT.—On May 22nd, at Westbourne Villa, Ealing, the wife of Alfred Langston Scott, M.R.C.S., of a son.

TEBB.—On May 21st, at Charlecombe, Bournemouth, the wife of W. Scott Tebb, M.A., M.D. Cantab., of a son, who lived only a few minutes.

MARRIAGES.

POPE—BILLSON.—On May 26th, at St. John the Baptist's, Knighton, Leicester, by the Rev. Mortimer H. Linklater, Frank Montague Pope, M.B. Cantab., M.R.C.P. Lond., eldest son of the late Thomas Pope, of Harewoods, Bletchingley, Surrey, to Catherine, eldest daughter of William Billson, The Lawn, Stoneygate, Leicester.

STONE—FIELDEN.—On May 20th, at Nutfield Parish Church, Dr. Stone, of Holmfield, Reigate, to Kate, fourth daughter of the late Joshua Fielden, Esq., of Nutfield Priory.

DEATHS.

ATKINSON.—On May 17th, at the Grange, Rotherham, James G. Atkinson, M.D., F.R.C.P. Edin.

BROWNE.—On May 24th, at his residence, Montpelier-road, Brighton, George Browne, M.R.C.S., in his 71st year.

COOPER.—On May 21st, at Albion-street, Hull, Henry Cooper, Knt., M.D., J.P., aged 84.

COSSAR.—On May 21st, at East Craigs, Corstorphine, N.B., Thomas Cossar, M.D., F.R.C.P.E., aged 71.

CROMPTON.—On May 22nd, at Brookmead, Cranleigh, Samuel Crompton, M.D., aged 74.

DIXON.—On May 21st, at his residence, Brighton, suddenly, James Lewis Wilmot Dixon, M.R.C.S., L.S.A., in his 71st year.

DRACACHIS.—On May 25th, at Herries-street, Kilburn, N.W., Leonidas Dracachis, M.R.C.S., in his 84th year.

FORBES-WINSLOW.—On May 17th, at Rivercourt, Hammersmith, Percy Forbes, eldest and much beloved son of Dr. L. Forbes-Winslow, aged 22, Student of Charing-cross Hospital, after five months' terrible suffering, the result of blood-poisoning.

HILBERS.—On May 23rd, at Brunswick-place, Brighton, Surgeon-Major William Hilbers (retired), aged 75.

HIRON.—On May 18th, at Studley, Redditch, John H. Hiron, M.R.C.S.

HOGGAN.—On May 18th, at Nice, George Hoggan, M.B. and C.M. Edin. Cremated at Père-la-Chaise on his 54th birthday, May 24th.

JOSEPH.—At Moi Mir, Little Bay Mines, Notre Dame Bay, Newfoundland, 24th April, 1891, Alice Jane Duder, wife of Louis E. Joseph, M.B., C.M., Surgeon, Newfoundland Consolidated Copper Mining Company.

MOYLES.—On May 22nd, at his residence, The Bushes, Edgbaston, Thomas Moyles, M.D., aged 74.

SMITH.—On May 15th, at Shrewsbury, James Onsten Smith, L.R.C.P. Edin., M.R.C.S.

SOUTHWOOD.—On May 20th, at Fore-street, E.C., Joshua Southwood, M.D. St. And., L.R.C.P. Edin., F.R.C.S. Eng., aged 80.

TIBBITS.—On May 24th, at Warwick, John Tibbits, M.D., J.P., aged 65.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on May 26th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	175	54	3	28	..	260	442
North-Western Hospital	128	30	..	11	..	169	443
Western ,,	139	14	..	14	1	168	224
South-Western ,,	151	23	..	8	..	182	240
South-Eastern ,,	127	17	..	18	1	163	462
Northern ,,	157	14	..	..	..	171	480
Totals .. — —	877	152	3	79	2	1113	2391

SMALL-POX.—*Atlas* hospital ship, 30.

Medical Diary for the ensuing Week.

Monday, June 1.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Mr. J. H. Morgan: Congenital Deformities of Hands and Feet.—Royal London Ophthalmic Hospital, Moorfields: 1 P.M., Mr. R. Marcus Gunn: Cataract.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Mr. F. H. Balkwill: Notes on some Morphological Dental Irregularities in some of the Skulls in the Museum of the Royal College of Surgeons of England. Casual Communications:—Mr. Sewill: The Production of Caries by Artificial Means out of the Mouth (illustrated with microscopic sections).—Mr. A. W. Barrett: (1) A Clamp extemporised to arrest Alveolar Hæmorrhage; (2) An Underhung Bite, probably due to incomplete development of upper maxilla, dependent upon non-eruption of wisdom teeth.—Mr. Ackery: Unilateral Absence of Teeth in a patient aged thirty-five.

Tuesday, June 2.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: General Paralysis of the Insane.—Hospital for Skin Diseases, Blackfriars (the lecture will be delivered at the Examination Hall, Victoria Embankment): 5 P.M., Mr. J. Hutchinson: Arsenic as a Drug.

Wednesday, June 3.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. T. Henry Green: Demonstration of Clinical Cases.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Quarry Silcock: Choroidal Affections.

OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Kelson, Mr. Alban Doran, and others.—Dr. Herbert Spencer: On Visceral Hæmorrhages in Stillborn Children, an Analysis of 130 Autopsies, being a Contribution to the Study of the Causation of Stillbirth (with exhibition of museum and microscopic specimens).—Dr. John Phillips: The Influence of Purpura Hæmorrhagica upon Menstruation and Pregnancy.

Thursday, June 4.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Mr. J. H. Morgan: Cases of Defective Gait in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Ormerod: Varieties of Tremor.—London Throat Hospital, Gt. Portland-st.: 3 P.M., Mr. W. R. H. Stewart: Some of the Causes of Ear Disease.

Friday, June 5.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. T. Henry Green: Demonstration of Clinical Cases.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Actinomycosis (Sections of Actinomycosis).—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Kidneys and Genito-urinary Tract.

Saturday, June 6.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Clinical Demonstration.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 28th, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
May 22	29·62	S.W.	48	46	99	58	45	·10	Raining
,, 23	29·77	S.W.	49	46	100	61	45	·03	Cloudy
,, 24	29·65	E.	48	46	82	51	46	·05	Raining
,, 25	29·72	N.E.	44	42	70	48	42	·50	Raining
,, 26	29·73	W.	48	44	101	59	43	·06	Cloudy
,, 27	29·62	W.	51	47	89	58	43	·04	Cloudy
,, 28	29·67	W.	53	47	106	58	45	·02	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

SCARLET FEVER BY POST.

OWING to the prevalence of scarlet fever at Johannesberg it is said that the sanitary authorities of Cape Colony have cautioned recipients of letters and newspapers from that city to have them fumigated as soon as received. We believe there is good evidence of the transmission of the contagia by this means, and some years ago we received several letters quoting unequivocal instances of this mode of propagation (THE LANCET, vol. i. 1875). The precaution suggested has therefore a foundation in fact. The daily contemporary from which we take the information points out that there is probably as much intercourse by letter between Johannesberg and London as there is with Cape Colony, and we should be glad to know if any of our readers have met with instances of the disease being thus conveyed. We need hardly say that the proofs of such communicability will require to be very cogent before they can be accepted.

Dr. R. R. Rentoul.—It would be better for the communication to be referred to the journal in which the alleged misstatements appeared.

Matron.—The case might be submitted to one of the physicians of the hospital.

MIDDLESEX HOSPITAL.

To the Editors of THE LANCET.

SIRS,—Referring to the paragraph on page 1174 of your current issue I beg to inform you that the report as to the closing of the in-patient department of this hospital for two months from July 20th is premature, as it has not yet been definitely decided to close the hospital, in view of the strike in the carpentering trade which might seriously delay the work of laying the new teak floors in the hospital.

I am, Sirs, yours faithfully,

F. CLARE MELHADO,

May 27th, 1891. Secretary Superintendent.

THE INFLUENZA AS AN ADVERTISING MEDIUM.

A CORRESPONDENT points out the evil of the action of those who use the influenza for vaunting their remedies in the public papers. He does well to condemn this procedure. If any medical man has anything really original and important to suggest, the medical press is at his service; and if he prefer the lay press, he must not be surprised if critics credit him either with being afraid to submit his views to those who can test them, or with motives of vainglory.

Yorkshire.—The recent works of Laveran, and of Kelsch and Kierner. Also Marchiafava and Celli, Dolega, and others in the *Fortschritte d. Medicin* for the last few years; Laveran, Archives de Méd. Expérimentale, 1889 and 1890. Abstracts of several recent papers are to be found in the Centralblatt f. Allg. Path. u. Path. Anat., I., No. 12, June 1st, 1890. See also Klebs, Allgemeine Pathologie, I, 1887, chap. viii., where further references may be found.

Ethnologist.—The Census has been taken in British India and Burma. The population in Lower Burma in the last census was about 3,730,000, and according to the present Census is approximately 4,430,000,—an increase of 700,000, or 18¾ per cent. The total population of the country under the control of the Chief Commissioner of Burma will be found to exceed 7,500,000.

Plumb.—For the most recent information regarding plumbism we would refer our correspondent to Dr. Oliver's Gulstonian lectures, an abstract of which appeared lately in our columns.

"THE VALUE OF THE TONGUE AS A RESPIRATOR."

To the Editors of THE LANCET.

SIRS,—I was rather surprised, on reading an article in THE LANCET of May 23rd, 1891 (p. 1149), under the above heading, by an honorary surgeon to a throat and ear hospital, to find him not only recommending his patients to breathe through the mouth, but averring that he himself does so. I have always understood that the nose is nature's only true respirator, and that to breathe through the mouth, especially when facing a cold east wind or breathing quickly the night air, is not only unphysiological, but dangerous. It has been proved experimentally by Aschenbrandt, Block, and in this country by Greville Macdonald, that however low the atmospheric temperature may be, the air is raised almost to blood heat by passing through the nose alone, and that, however dry, it is completely saturated with moisture by passing through the same way. It is well understood, I think, that much harm may ensue from simply breathing through the mouth. Asthma, bronchitis, pharyngitis, laryngitis, and many other diseases may be started by habitual mouth breathing. It is bad enough for people to breathe through their mouths when unable, from disease, to get the air to pass through nature's proper channel, the nose, and I certainly do not feel justified in following the advice of Dr. Scatliff. It is the invariable rule among savage nations to breathe solely through the nose, and they seldom, if ever, suffer from disease of this organ or the throat. The lower animals, with the exception of the dog tribe, seldom breathe through the mouth, and I am perfectly convinced that we should see far less disease of nose or throat did everyone learn to breathe *solely* through the nose. I am sorry to differ from Dr. Scatliff, but I do so on what I conceive to be purely physiological grounds.

I am, Sirs, yours faithfully,

FRED. A. A. SMITH, M.D.,
Hon. Surgeon, Cheltenham Eye, Ear, and Throat Infirmary.

Cheltenham, May 25th, 1891.

AN APPEAL.

MR. W. LAIRD-COX, Southborough, Tunbridge Wells, wishes to make an urgent appeal on behalf of two old ladies, daughters of a deceased medical man. They are much in need of change of air in consequence of illness through the winter. They could be received at a convalescent home, but this would entail an outlay of about £10, and this sum is quite beyond their very slender means. Any contributions will be gladly received and acknowledged by Mr. Laird-Cox.

H.B., M.R.C.S., L.R.C.P.—We hardly think our correspondent has any just ground for complaint. He was for the time being the *locum tenens* of the dispenser, and therefore should not have refused to discharge the duties of that office. Although holding the diploma named, its requirements cannot override the fulfilment of duties appertaining to his appointment.

SAWTELL FUND.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow us to acknowledge with many thanks the following additional subscriptions to the above fund?

Professor J. W. Groves, £5 5s.; Mr. John Adams, £2 2s.; Mr. Arthur C. Roper, £1 1s.; Mr. Henry Stear, £2 2s.

We beg also to point out that in the list published in THE LANCET of May 16th (p. 1135) Mr. Harrison Cripps' subscription was erroneously given as £5 5s. It should have been announced as £2 2s.

We are, Sirs, yours very truly,

V. D. HARRIS,
G. T. PENNY,
H. TAYLOR.

May, 1891.

THE TRAINING OF WILD ANIMALS.

THE degree of docility to which the wildest and most ferocious classes of animals may be brought by training, and that of a humane character, is illustrated in a very striking manner by an exhibition now open to the public at the Crystal Palace. Lions, tigers, bears, panthers, chetahs, boar-hounds unite to form a happy family, and mingle in frolics on terms of the greatest possible amity. The quiet obedience to the commands of the trainer and his assistants shown by animals commonly looked upon as almost untamable is not the least interesting part of the display. Of course, wonder is the feeling which alone is excited in the minds of ordinary spectators; but thoughtful persons will probably find themselves indulging in speculations on the plasticity of brute minds, and the possibility, however remote, of bringing into the service of man the strength, fleetness, and courage of animals which have hitherto been regarded as simply quarry for the sportsman, or as consignments to zoological societies for the observation of biologists or the delectation of youthful holiday-makers.

Mr. C. G. B. forwards us a correspondence with Dr. B——, in which Dr. B—— declines to meet him in consultation after having fixed a time to do so, and not only so, but appears as taking the case into his own care. Dr. B—— admits the politeness of the terms of Mr. B——'s letter, but throws no light on the reason for so unusual a course. He says, indeed, that Mr. B—— had "long ago forfeited any claim to courteous consideration." But Mr. B—— says that he is unconscious of having done or left undone anything to justify such words. We trust there is some misunderstanding in this case. Where substantial cause of offence exists and leads to such an unhappy display as in this case, it should be the subject of explicit and definite statement by the gentleman offended.

THE PLAINT OF THE INFLUENZA MICROBE.

To the Editors of THE LANCET.

SIRS,—In justice to my reputation, and for the due edification of "General Practitioner," who wrote a quite uncalled-for letter to a lay contemporary this week concerning my conduct, I, who after all am only a poor microbe, beg to assure him and other Galen's 'prentices that gelsemium or any other "emium" does not distress me. I smile at salicylates and roar at sulphonal. As for aconite, I positively enjoy it, and quinine does not in the least make me feel queer. Eucalyptus is wholesome, but a fig, say I, for the Pharmacopœia. You that are possessed go to bed and stay there if you want to get rid of me. Have a fire, too. I pity poor humans without one this weather. Call in your favourite general practitioner and let him look learned, for faith is a great thing. He cannot touch me, but he can bring down your temperature. Take nourishment, anorexia notwithstanding; and be not above alcohol, but put it down. What I really object to is, that low spirits, suicidal feelings, and other such sickening sequelæ are unblushingly ascribed to me. Rather look for them down in the depressant depths of the apothecary's mortar. It is not pleasing, and is a source of sorrow to have pneumonia sputa ejected in my face too. What have I to do with pneumococcus or tubercle bacilli either? I am beyond bacteriological laboratories, and Koch or anyone else cannot catch me. Alas for the cultured! Whatever else is said, I do good to those that hate me; but they treat and malign me so much, I mean to fertilise elsewhere, and shall soon be going away. A legacy will be left behind which will not be due entirely to my benevolence.

I am, Sirs, yours, not to be caught by chaff or gelsemium either,

May 21st, 1891. AN OVERBURDENED INFLUENZA MICROBE.

COFFEE DRINKERS.

T. S. R.—The following curious calculation has been made, but we cannot vouch for its accuracy:—The Dutchman drinks on an average 16½ lb. of coffee per year; the Belgian about half that quantity; the Norwegian about 6½ lb.; the German about 4½ lb. per head, being about 2 lb. more than the Frenchman, who has the reputation of being a great coffee drinker; whereas, according to statistics lately taken, the Englishman consumes only ½ lb. a year, and the Russian one-fifth of a pound.

A WARNING.

To the Editors of THE LANCET.

SIRS,—On Monday, May 25th, a man of gentlemanly appearance called at my house. He gave the name of Higgins, and asked if I was in. My servant informed him that I was out, but would most likely be in soon to lunch. He was shown into my consulting-room, where my wife saw him immediately afterwards, and he informed her that he had come from the country to consult me. He said he would not wait then, but would take some lunch and return in half an hour. He did not, however, and it was discovered that he had carried off a box of surgical instruments. The man is tall (about 6ft.), very fair complexion, light sandy hair, moustache, and no whiskers. He looks about thirty years of age, and wears a long, loose, fawn-coloured overcoat and brown bowler hat.—I am, Sirs, yours faithfully,

THOMAS HAMILTON, M.B., F.R.C.S. Edin.

Green Lanes, Stoke Newington, N., May 26th, 1891.

MEDICAL ATTENDANCE ON EMERGENCIES.

M.D. asks to be informed who is liable for the fee when a medical practitioner is summoned by the police to an urgent case at the patient's house in close proximity, and what is the recognised fee under such circumstances?

Dr. Knox-Bond.—The letter has been received.

Mr. Tubby's paper will appear shortly.

ETHNOLOGY.

To the Editors of THE LANCET.

SIRS,—Can any of your readers give me the name of an elementary work on Ethnology, a subject with which I am unacquainted, but am anxious to look into? I am, Sirs, yours faithfully,

May 19th, 1891. INEXPERTUS.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Glover Lyon, London; Dr. A. Ruffer; Mr. F. Treves, London; Mr. Lawson Tait, Birmingham; Sir M. Mackenzie, London; Professor Windle, Birmingham; Mr. Tweedy, London; Dr. Tily, Chiswick; Dr. F. Smith, Cheltenham; Mr. W. Adams, London; Messrs. Griffin and Co.; Mr. H. Cockburn, London; Dr. Black, Inverness; Messrs. Lee and Martin, Birmingham; Dr. Downie, Glasgow; Messrs. Kegan Paul and Co., London; Dr. Auld, Glasgow; Dr. Gardner, London; Mr. Pugin Thornton, Canterbury; Mr. W. Tyndall, Hampton; Messrs. Lloyd and Co., Leicester; Mr. A. Bury, Scunthorpe; Messrs. Wagner and Gerstley, London; Dr. Cattle, Nottingham; Mr. Harkness, Stamford Hill; Mr. Murray, Halifax; Mr. C. Candler, Melbourne; Mr. Gordon Green, London; Hon. Mrs. P. Roberts, London; Messrs. Blondeau et Cie., London; Mr. Lawrence-Hamilton, London; Messrs. Drysdale and Co., London; Dr. Sisley, London; Dr. D. V. Harris; Dr. Theodore Maxwell, Woolwich; Mr. C. G. Brown, Goole; Messrs. Melachrino and Co., London; Mr. W. G. Nash, Plymouth; Messrs. Hopkinson and Co., Notts; Dr. Boyd, Dublin; Dr. Jacob, Leeds; Dr. Sedgwick Saunders, London; Dr. Weir, Tranckei, U.S.; Messrs. Keene and Ashwell, London; Dr. Rentoul, Birmingham; Messrs. Gallais and Co., London; Fleet-Surgeon Ellis; Mr. Dukes, London; Dr. J. Lindsay Stevens, Glasgow; Mr. Laird-Cox, Southborough; Messrs. Beal and Son, Brighton; Surgeon-Major Dobie, London; Messrs. Oliver and Boyd, Edinburgh; Mr. T. B. Browne, London; Messrs. Ledger and Co., London; Mr. Melhado, London; Dr. Younger, London; Dr. T. Brooke, Oxford; Dr. Court, Staveley; Mr. Cardew, London; Mr. L. Mark, London; Dr. Hamilton, London; Mr. Yoakley, Newcastle-on-Tyne; Sig. Lodia, Barcelona; Mr. T. Smith, London; Dr. Dutton, London; Mr. C. Steele, Clifton; Mr. Hare, Manchester; Mr. Brooks, Hull; Mr. Carey, Barnes; Mr. Blount, Paris; Mr. Earle; Mr. New, Eton; Miss Walker, London; Mr. Shortley, Coventry; Mr. Ricker, St. Petersburg; Mr. Sell, London; Mr. Saxon, London; Dr. Garman, Kendal; Mr. Langley, Nottingham; Mr. Hornibrook; Dr. Zangger, Zurich; Mr. Edwards, Sunbury; Dr. Bottentuit, Paris; Mr. Merck, Darmstadt; Dr. Johnstone, London; Mr. Head; Mr. Stephens, Isle of Man; Mr. Johnston, Glasgow; Mr. Norton; Mr. Wade, Compton Bishop; X.; Sigma, London; Physician, London; An Overburdened Influenza Microbe; Secretary, General Infirmary, Derby; A Working Man; J. C. W., Manchester; Alpha, London; Secretary, Queen's College, Birmingham; Secretary, General Hospital, Suffolk; Sussex County Hospital; Bachelor, London; Assistant Secretary, Stockport Infirmary; Matron, Cardiff; Orthos, Llandudno; Ichthyol; Bolton Infirmary; Alpha, Sheffield; M.D., Edinburgh; Plumb; A. B. G., London; Med. Practitioner.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Snow, London; Mr. Evans, Oswestry; Mr. Baker, London; Hon. K. Scott, Ventnor, I.W.; Dr. Orr, Godalming; Dr. Ridge, Enfield; Dr. Shiels, Dunbar, N.B.; Mr. Lockwood, Huddersfield; Mr. Tyte, Minchinhampton; Mr. Morgan, Studley; Dr. Harrison, Ealing; Dr. Wallis, Poole; Mr. Goodall, Chesterfield; Mr. Tully, Hastings; Mr. Morgan, Oswestry; Dr. Griffith, Cumberland; Mr. Paton; Messrs. Gale and Co., London; Mr. O'Meara, Loughborough; Messrs. McCorquodale and Co., Glasgow; Mr. Manby, Wolverhampton; Messrs. McNab and Co., Leith; Dr. Rice, Derby; Mr. Pead, Woolwich; Messrs. Wilcox and Co. London; Mr. Knox, McKeesport, U.S.A.; Dr. Ellis, Bishop Auckland; Mr. Wolcott, Keeseville, N.Y.; Mr. Roberts, Peckham Rye; Mr. Craig, Wick, N.B.; Mr. Saxon, London; Mr. Ralph, North Woolwich; Dr. Murrell, Derby; Mr. Gratan, Armagh; Mr. Swanson, Plaistow; Mr. Anderson, Bodmin; Mr. Deane, Salop; Dr. O'Neilly Tuam; Mr. Bell, Leytonstone; Mr. Dobbs, Southgate; Dr. Vasey, Whitby; Mr. Thin, Edinburgh; Mr. Tyrrell, Malvern; Mr. Herbert, Pendlebury; Mr. Reid, London; Dr. Jones, Hirwain; Dr. Williams, Cowes, I.W.; Dr. Bower, Bedford; Mr. Wand, Leicester; Mr. Gray, Shrewsbury; Rev. Mr. Reynardson, Stamford; Messrs. Duncan and Flockhart, Edinburgh; Mr. Beckett-Turner, London; Dr. Kirby, Ben Rhydding; Dr. Sutherland, jun., Newcastle-on-Tyne; Messrs. Slinger and Son, York; Mr. Heywood, Manchester; Dr. Lloyd, Birmingham; Mr. Ackland, Exeter; Dr. Nesfield, Manchester; Mr. Yearsley, Crewe; Rev. W. Butler, Bristol; Mr. Bryden, Shipley; Mr. Straker, Corbridge; Mr. Walker, Corwen; Dr. Wetherby, Yorks; Dr. Waters, Liverpool; Mr. Bragg; Mr. Edwards, Oswestry; Mr. Davenport, London; Mr. A. Ward, Manchester; B. A., London; S. L., London; Vicar, Leamington; P. E. T., London; Secretary, Newcastle-on-Tyne Dispensary; Commissioner, London; J. D., London; Medical Health Officer, Ilfracombe; Yorkshire, London; Statim; Barnwood House Hospital, Gloucester; R. W., Abergavenny; Expectans; Ashwood House, Staffs; Beaumont, Leeds; Physician; Isa, London; Gordon Hotels Co., London; Riviera; Surgeon, Somerset; Wirral Children's Hospital, Birkenhead; Nemo, London; M. S., Birkenhead; Medicus, London; Medicus, Oldham; Pharmacist, London; Medicus, Bradford; Arbutus, Cheshire; Medicus, Lewisham; Medicus, Bournemouth; Trinity, London; Locum, Sheffield; Nemo; Medicus A. O., London; Box 52, Cheshire; E. C., London; Theta, London; Oxon, London; B., London; C., London.

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METROPOLITAN HOSPITAL SUNDAY FUND.

THE LANCET SPECIAL SUPPLEMENT.

Published in aid of the Appeal to be made on Sunday, the 7th June, 1891.

THE HOSPITALS AND INDUSTRIES OF THE METROPOLIS.

IT has again become our duty to address the readers of THE LANCET, and that still larger public for which the Hospital Sunday Supplement is prepared, on the subject of the claims of the hospitals of the metropolis upon their sympathy and generous support. To many this subject will have become so familiar, that it may well be considered threadbare. But we think that upon perusal of the following pages this will be found not to be the case. Notwithstanding the fact that the work of the metropolitan hospitals has been reviewed at considerable length in these pages during a succession of years, the work itself is so vast in magnitude and so multifarious in its forms, that we are as yet far from having depicted all its striking and interesting features. The aspect which we have on the present occasion selected for especial remark is its bearing upon the industrial life of our vast community. There are some phases of industrial enterprise which, by reason of the manifest peril or excessive hardship encountered in their pursuit, strike even the slowest imagination, and surely awaken feelings of gratitude and of sympathy. Thus we easily kindle over the winter's fire at thoughts of the cost in toil and solitude and danger at which our coal has been won from the "secret mine," or ruminate during the wakeful hours of a stormy night upon the hard conditions of a seafaring life. These things are too obvious to be overlooked, and too striking to be under-estimated. But in the vast hive of industry in which we dwell are crafts as arduous as the miner's, as perilous as the seaman's; and yet few of us remember, even if we recognise the fact at all, that London, the great metropolis of commerce, is also a great centre of mechanical and chemical industry. Yet so it is. Upon the riverside, from London Bridge to Greenwich, there extends an almost unbroken line of wharves and docks, constituting the Port of London. South of the river there is established in Bermondsey and its neighbourhood a tanning industry scarcely inferior in dimensions to that of any other seat of the trade. North of the river, closely investing the city on every side, are vast printing establishments, which probably contribute more to that flood of literature which is the most distinguishing characteristic of the present age than any equal area throughout the world. Sown throughout the metropolis are the terminal stations of the great railways, with their vast complement of officials and attendants, their incessant bustle, and seething crowds of passengers, and all the perpetual risk to life and limb incidental to the motion of multitudes of people and heavy vehicles, and the handling of goods in ponderous and often unwieldy masses. Nor is it the terminal stations only which make demands upon the hospital accommodation of the metropolis. For long distances down the lines leading out of London the sufferers from railway accidents seek relief in the metropolis. Indeed, it needs no words to show how much easier it is to bring an injured man for fifty or a hundred miles along the line than to carry him for ten or even five miles across country. Both time and suffering are saved to the patient, and often in such cases the saving of time and suffering means the saving of life.

The same thing happens in the neighbourhood of the docks to the hospitals situated on the riverside. Owing to the frequency and variety of accidents connected with the shipping, shipbuilding, and allied industries which are located in the Port of London, it has been found desirable to establish at Poplar a hospital devoted exclusively to the relief of injuries arising from accidents. Here there are annually received not only very large numbers of casualty cases, great and small, arising in the neighbourhood of the hospital, but a certain number also of persons who have received injuries at sea, and are brought into port on board homeward-bound ships. Thus, as an incident of its unique position as the greatest commercial centre and one of the greatest industrial centres in the world, does London pay an annual tax in lives, limbs, and suffering, in money and in money's worth, which no figures can adequately represent. Perhaps, to the ordinary mind, the best and most adequate impression of the havoc wrought in any single year by the pursuit of peaceful industry in a vast community like that of London may be obtained by picturing in imagination the carnage of a battle-field. The slaughter and wounds on many a famous field have not been more numerous or more severe, nor the terrible total of human suffering vaster, than that of which a very imperfect and incomplete account is given in the following pages. The men who fight and fall in battle are invested with heroic rank, and their memory is cherished as an inspiration and a boast; but those others who have one by one fallen at their various posts with equal merit though without renown have perished or have suffered, as the case may be, unhonoured, unremembered and unknown. It must be so, and they would have been unaided too but for the beneficent organisation of the metropolitan hospitals which brings to bear for their relief the highest skill and the best conceived appliances that science and ingenuity can produce. The support of such a work can never be the object of an unsuccessful appeal to the sympathy of the more charitably disposed among the dwellers in the metropolis. The steady and pleasing growth of the Hospital Sunday collection since its inauguration in the year 1873 is of itself a sufficient ground of this confidence. But though our appeal to-day is primarily made upon the ground of charity, we shall not hesitate to remind our readers that the service to which the present effort is ancillary is not more a work of mercy than of duty. As fairly might an army on the field of battle neglect its wounded soldiers as an industrial community its incapacitated members when the incapacity results from the pursuit of their avocations. It is in the common interest that they have suffered, and consequently their sufferings are matter of common concern. We say therefore with the fullest confidence that every reader's conscience will re-echo our words that no man or woman who dwells in London for the sake of the advantages which its commercial pre-eminence or its industrial greatness directly or indirectly yields, can afford to contemplate with an unsympathising eye or an empty hand the sufferings of the labourer, or the necessities of that organisation of medical and surgical relief by which alone those sufferings can be mitigated. But to show this somewhat more in detail, we will pass in cursory review a few of the great industries of London, as to which it is not difficult to point out that they conduce to casualties or maladies with which the hospitals of the metropolis effectively deal.

SHIPPING.

To the shipping industry we have already made a passing allusion. It will be of course perceived that for our present purposes the word must be understood to comprehend a great many industries connected with shipping which are pursued at the docks and by the riverside. Such are the loading and unloading done by dock labourers and lightermen, and the repairing, fitting, and shipbuilding which occupies a large population of ship's engineers and artificers of various crafts. It is indeed in these other trades associated with shipping that the greater number of casualties occur, which can be described as typical of the perils of a port. The accidents which happen at sea, and are brought home for treatment, are indeed comparatively few, though often very severe. A seaman, for example, falls from the mast-head upon the deck, or tumbles into the ship's hold; but on shore a score of less obvious

LIST NO. I.—GENERAL HOSPITALS.

Name of hospital.	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balances, &c.	Total income.	Ordinary expenditure.	Balances, capital, expenditure, &c.	Total expenditure.
	£	£	£	£	£	£	£	£	£
Charing-cross	3,954	1,010	3,802	1,142	12,631	22,539	14,926	7,613	22,539
French	—	—	—	—	—	—	—	—	—
German	3,020	667	2,366	300	3,589	9,942	9,123	819	9,942
Great Northern Central	4,825	312	335	180	827	6,479	5,897	582	6,479
Guy's	4,947	153	26,802	—	6,694	38,686	35,780	2,906	38,686
Italian	610	94	87	—	2,377	3,168	914	2,254	3,168
King's College	8,725	1,406	1,157	5,400	9,790	26,478	17,126	9,352	26,478
London	23,720	3,125	31,068	21,586	6,854	86,343	55,574	30,769	86,343
Metropolitan	3,200	313	470	2,140	2,527	8,650	8,650	—	8,650
Miller Hospital and Royal Kent Dispensary	1,704	279	242	1,310	250	3,875	3,403	472	3,875
North-West London	—	—	—	—	—	—	—	—	—
Poplar	3,268	219	423	285	831	5,006	3,011	1,995	5,006
Royal Free	—	—	—	—	—	—	—	—	—
St. George's	8,996	1,615	13,230	21,608	3,777	49,151	27,383	21,768	49,151
SS. John and Elizabeth	—	—	—	—	—	—	—	—	—
St. Mary's	9,413	2,083	2,571	8,277	1,264	23,608	22,199	1,409	23,608
Seamen's	6,280	708	3,856	7,094	7,651	25,598	12,766	12,832	25,598
Middlesex	10,233	2,083	8,319	—	6,482	27,117	24,533	2,584	27,117
Tottenham	4,220	—	339	—	29	4,588	4,512	76	4,588
University College	12,650	—	4,765	1,974	3,755	23,153	21,069	2,003	23,153
West London	5,724	573	1,840	1,424	3,160	12,711	8,275	4,436	12,711
Westminster	2,184	1,146	4,168	6,611	—	14,109	12,924	1,185	14,109
	117,720	15,786	105,920	79,300	72,478	391,210	288,095	103,145	391,210
Estimated to supply omissions	10,551	1,583	2,971	6,725	—	21,830	19,450	2,380	21,830
Total	128,271	17,369	108,891	86,031	72,478	413,040	307,515	105,525	413,040

LIST NO. II.—SPECIAL HOSPITALS.

Name of hospital.	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balances, &c.	Total income.	Ordinary expenditure.	Balances, capital, expenditure, &c.	Total expenditure.
	£	£	£	£	£	£	£	£	£
City of London Hosp. for Dis. of the Chest	4,830	958	475	3,952	1,398	11,602	9,660	1,942	11,602
Hospital for Consumption	13,420	1,719	7,414	5,101	937	28,591	24,444	4,147	28,591
North London Consumption	—	—	—	—	—	—	—	—	—
Royal for Dis. of the Chest	7,341	306	86	100	—	7,923	6,433	1,490	7,923
Royal National for Consumption	—	—	—	—	—	—	—	—	—
Alexandra for Children	1,758	208	80	5	388	2,439	2,129	310	2,439
Belgrave ,,	—	—	—	—	—	—	—	—	—
Cheyne ,,	—	—	—	—	—	—	—	—	—
East London ,,	6,630	417	944	36	2,205	10,222	7,326	2,896	10,222
Evelina ,,	3,966	490	649	—	1,451	6,556	6,060	496	6,556
Home for ,,	—	—	—	—	—	—	—	—	—
,, ,, Sick ,, & S. Lon. Dis. for Women	760	143	685	—	143	1,731	1,598	133	1,731
Hosp. ,, ,, ,,	—	—	—	—	—	—	—	—	—
North-Eastern ,,	—	—	—	—	—	—	—	—	—
Paddingtn.-gr. ,,	2,266	159	331	18	248	3,351	2,459	892	3,351
Victoria ,,	4,126	354	685	66	79	5,310	5,186	124	5,310
"The Vine" ,,	—	—	—	—	—	—	—	—	—
British Lying-in	—	—	—	—	—	—	—	—	—
City of London ,,	340	—	2,888	—	—	3,737	3,316	421	3,737
General ,,	370	78	2,301	—	24	2,979	2,844	135	2,979
Qn. Charlotte's ,,	—	—	—	—	—	—	—	—	—
Chelsea for Women	3,343	198	686	—	356	4,583	4,051	532	4,583
Hospital ,,	2,577	305	1,328	2,852	1,346	8,368	6,237	2,131	8,368
Grosvenor ,, and Children	—	—	—	—	—	—	—	—	—
New ,,	1,278	135	750	200	8	2,380	2,264	116	2,380
Royal Hosp. for Children and Women	—	—	—	—	—	—	—	—	—
Samaritan Free ,,	3,711	490	17	750	1,180	6,148	5,948	200	6,148
Cancer	4,560	521	1,497	5,239	974	12,791	9,597	3,194	12,791
London Fever	6,288	460	4,500	1,003	1,128	13,382	8,365	5,027	13,392
Gordon Hospital for Fistula	418	31	439	500	14	1,402	942	460	1,402
St. Mark's ,, ,, ,,	837	104	691	39	729	2,400	2,137	263	2,400
National ,, ,, Dis. of Heart	—	—	—	—	—	—	—	—	—
Female Lock	2,798	200	750	475	—	4,223	4,038	185	4,223
Male Lock	121	62	1,164	9	208	1,564	1,564	—	1,564
Hosp. for Epilepsy &c.	—	—	—	—	—	—	—	—	—
National for the Paralysed	—	—	—	—	—	—	—	—	—
West-end	—	—	—	—	—	—	—	—	—
Central London Ophthal.	370	63	246	—	109	1,087	923	164	1,087
Royal London ,,	—	—	—	—	—	—	—	—	—
Royal South London ,,	—	—	—	—	—	—	—	—	—
Royal Westminster ,,	1,758	117	398	—	125	2,398	2,169	229	2,398
Western ,,	413	9	310	—	82	805	652	153	805
City Orthopædic	—	—	—	—	—	—	—	—	—
National ,,	—	—	—	—	—	—	—	—	—
Royal ,,	—	—	—	—	—	—	—	—	—
Hosp. for Dis. of Skin	—	—	—	—	—	—	—	—	—
Cent. Lond. Throat and Ear	—	—	—	—	—	—	—	—	—
Royal Ear	—	—	—	—	—	—	—	—	—
Hosp. for Dis. of Throat	—	—	—	—	—	—	—	—	—
London Homœopathic	—	—	—	—	—	—	—	—	—
London Temperance	1,809	406	406	308	1,287	4,416	4,377	39	4,416
The Dental	—	—	—	—	—	—	—	—	—
National Dental	—	—	—	—	—	—	—	—	—
	77,343	8,183	29,819	20,653	14,456	150,454	124,809	25,646	150,458
Estimated to supply omissions	70,349	7,564	13,959	15,209	—	107,072	101,547	5,525	107,072
Total	147,692	15,747	43,778	35,853	14,456	257,526	226,356	31,171	257,530

risks waylay the labourer. He frequently wounds his hand or arm with the hook used to seize bales of goods, and, when he does, the merest scratch is apt to be a serious business, for such hooks are commonly enough contaminated with putrescent animal or other septic matter which poisons the wound. Then there are all the unnumbered risks of being struck by bales of goods in motion, receiving injury through failure of strength or skill in bearing and manipulating burdens. So much for the dock labourer. Of the iron worker and ship's carpenter it is unnecessary to do more than merely allude to the obvious and well understood perils which attend upon work with the materials and tools which they are called upon to employ. Bearing these things in mind, one reads without much surprise that at the Poplar Hospital casualties to the number of 730 were received during 1890 of such severity as to require treatment in the hospital wards, while lesser accidents and surgical emergencies, such as to be susceptible of out-patient treatment, numbered upwards of 13,000. Striking as these figures are, they only represent in concrete form the fact which we have just been stating in more general terms, that the vast industrial population which crowds about the docks and riverside cannot go through a single day without incurring numberless risks to life and limb, and scores of more or less serious casualties.

BREWERIES.

In local contiguity, but otherwise in striking contrast with the shipping and allied industries of the metropolis, is its enormous brewing interest. Some persons, perhaps, who entertain strong opinions concerning the liquor traffic may consider any pointed reference to this industry inopportune; but it is, to-day at least, no part of our duty to enter upon considerations which do not immediately bear upon the subject in hand, and we shall be content to say that the work to which we particularly allude has no direct relation to the use or abuse of alcohol. It is undoubtedly the fact that much of the disease and many of the casualties, especially minor casualties, from which labouring men suffer are either produced or promoted by drunkenness. But there does not seem to be any ground for attributing this vice in any special sense to brewers' workmen The mishaps which chiefly befall them are such as naturally arise in the course of their work—from dealing either with hot liquids or heavy barrels. Apart from scalds, which are less common and less serious in this industry, perhaps, than in some others, such as sugar refining and starch manufacture, the accidents to which brewers' men are most exposed are such as crushed hands or feet, or contused or fractured limbs. The most of these accidents are less severe, perhaps, than those previously referred to as besetting the dock and riverside trades, but their number is too great for them to be considered as in any sense a matter of small account. It is not indeed possible to ascertain what figures would represent them, since the only figures which comprise these returns include others with them. Thus, for example, the casualties reported by the London Hospital in Whitechapel, which is situated in the very centre of a brewing district, include such as occur in numberless other trades located in the east of London, in the aggregate larger—by many times probably—than the vast brewing trade, and also a great number of accidents arising from domestic and other causes not peculiar in any sense to an industrial occupation. But the London Hospital is situated, as is well known, in what is *par excellence* the industrial quarter of the metropolis, and industrial pursuits in some one or other of their many varieties will be by far the most prolific source of the accidents reported there. The figures of this hospital report are, therefore, worth quoting, although they are subject to the observation already made. Even after making a very large abatement, the reader can hardly fail to be impressed with the fact that among the in-patients 2000 were accident cases and among the out-patients nearly 9000. It would probably be within the mark to assume that sixty or seventy per cent. of these cases are attributable to the class of injuries now under consideration.

BUILDING.

One of the greatest industries of London and one of the most risky is the building trade. The extent to which building operations are constantly in progress in the

LIST NO. III.—CONVALESCENT AND COTTAGE HOSPITALS.

Name of hospital.	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balances, &c.	Total income.	Ordinary expenditure.	Balances, capital expenditure, &c.	Total expenditure.
	£	£	£	£	£	£	£	£	£
Metropolitan Conval. Institution	5,219	677	502	500	708	7,606	6,928	678	7,606
Do. do. do., Bexhill-on-Sea	3,248	302	91	200	585	4,426	2,872	1,554	4,426
Bexhill-on-Sea Convalescent	—	—	—	—	—	—	—	—	—
All Saints	—	—	—	—	—	—	—	—	—
Mrs. Gladstone's	923	—	417	—	72	1,412	1,412	—	1,412
Hanwell	—	—	—	—	—	—	—	—	—
Herbert	841	44	535	—	22	1,442	1,258	184	1,442
King's College	—	—	—	—	—	—	—	—	—
Mrs. Kitto's	519	83	—	—	55	657	626	31	657
Marsham's	—	—	—	—	—	—	—	—	—
Mary Wardell	908	146	909	10	15	1,988	1,665	323	1,988
Morley	—	—	—	—	—	—	—	—	—
Princess Frederica's	638	36	6	—	—	680	515	165	680
Ramsgate	—	—	—	—	—	—	—	—	—
St. Andrew's Clewer	2,073	167	1,118	—	66	3,424	2,779	645	3,424
Do. Folkestone	1,912	167	1,445	—	75	3,599	3,599	—	3,599
St. Barnabas	—	—	—	—	—	—	—	—	—
St. Leonards-on-Sea	1,504	—	188	1000	14	2,706	1,518	1,188	2,706
St. Mary Magdalen	393	—	378	—	51	822	815	7	822
St. Michael's	556	42	278	100	83	1059	743	316	1059
Seaside	3,067	—	123	—	903	4,693	3,423	1,270	4,693
Beckenham Cottage	428	52	82	—	—	562	533	29	562
Blackheath and Charlton Cottage	589	68	176	—	106	939	827	112	939
Burstead	—	—	—	—	—	—	—	—	—
Chislehurst &c.	471	62	90	—	153	776	566	210	776
Eltham	160	31	211	—	129	540	252	288	540
Enfield	—	—	—	—	—	—	—	—	—
Epsom and Ewell	757	—	170	—	135	1,062	627	435	1,062
Reigate and Redhill	556	52	157	100	45	910	810	100	910
Sheffield	109	8	56	—	14	187	170	17	187
Sidcup	232	8	76	—	50	366	366	—	366
Wimbledon	344	25	120	—	82	571	467	104	571
Establishment for Gentlewomen	—	—	—	—	—	—	—	—	—
Hampstead Home Hospital	1,532	—	1,493	—	—	3,025	2,362	663	3,025
National Sanatorium	—	—	—	—	—	—	—	—	—
Royal Sea Bathing Infirmary	—	—	—	—	—	—	—	—	—
Invalid Asylum	457	73	310	50	365	1,255	1,024	231	1,255
Firs Home	525	51	391	—	509	1,366	1,182	184	1,366
St. Catherine's Home	1,041	—	125	—	297	1,463	1,463	—	1,463
	29,611	2,074	9,357	1,960	4,534	47,536	38,802	8,734	47,536
Estimated to supply omissions	14,605	1,237	4,777	880	2,269	23,768	20,401	3,367	23,768
Total	44,216	3,311	14,134	2,840	6,803	71,304	59,203	12,101	71,304

TABLE No. I.—GENERAL HOSPITALS.

Name of hospital.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients.	Accidents and emergency.	Influenza.
Charing-cross	2,165	868	1,128	—	141	181	86,560	274	20
French	496	141	272	14	44	39	15,575	396	—
German	1,492	422	755	385	109	134	59,730	3,061	25
Great Northern Central	992	187	700	113	67	80	45,022	3,448	—
Guy's	5,747	5,199		235	425	512	100,000	20,834	30
Italian	239	15	218	40	—	6	9,741	—	—
King's College	2,518	654	1,291	226	206	178	29,556	10,337	—
London	9,193	3,248	4,408	768	616	574	120,158	8,847	—
Metropolitan	709	—	—	—	—	—	66,506	—	—
Miller Hospital and Royal Kent Dispensary	187	—	—	—	—	—	10,118	—	—
North-West London	695	90	457	18	20	12	24,409	15,554	—
Poplar	736	—	—	18	36	40	—	738	—
Royal Free	2,158	1,819		61	143	176	70,167	10,804	1,000
St. George's	4,466	3,661	359	1,175	373	422	82,220	16,786	
SS. John and Elizabeth	100	65	—	12	10	35	—	—	—
St. Mary's	3,578	847	2,457	109	262	358	93,445	623	866
Seamen's	2,864	603	1,801	30	223	149	8,562	355	65
The Middlesex	3,109	1,005	1,861	138	256	341	94,346	25,032	3,000
Tottenham	745	—	—	—	—	72	19,000	2,022	—
University College	2,773	1,082	1,140	—	190	290	146,062	29,476	—
West London	1,539	1,321		—	92	126	66,094	3,532	—
Westminster	2,730	2,312		237	185	233	90,000	11,614	—

TABLE No. II.—SPECIAL HOSPITALS.

Name of hospital.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergency.	Influenza.
City of London for Diseases of the Chest	1,077	954	38	78	133	85	56,965	—	45
Hospital for Consumption	1,836	1,426		479	174	239	71,168	—	—
North London ,,	—	—	—	—	—	—	—	—	—
Royal for Diseases of the Chest	—	—	—	—	—	—	—	—	—
Royal National for Consumption	763	614	—	614	124	25	None	—	—
Alexandra for Children	143	11	31	13	81	7	381	—	—
Belgrave ,, ,,	190	73	92	—	—	9	—	—	—
Cheyne ,, ,,	—	—	—	—	—	—	—	—	—
East Lond. ,, ,,	1,213	226	605	104	85	166	45,279	—	—
Evelina ,, ,,	716	521		100	52	143	24,214	—	—
Home ,, ,,	—	—	—	—	—	—	—	—	—
Home for Sick ,, and S. Lond. Dis. for Women	225	—	—	—	45	—	3,898	—	—
Hospital for Sick Children	—	—	—	—	—	—	—	—	—
North-Eastern for Sick Children	—	—	—	—	—	—	—	—	—
Paddington-green for Sick Children	454	390		90	25	52	27,624	2,401	—
Victoria ,, ,,	978	725		—	40	125	—	—	—
"The Vine" ,, ,,	—	—	—	—	—	—	—	—	—
British Lying-in	—	—	—	—	—	—	—	—	—
City of London Lying-in	423	—	422	—	23	1	1,331	—	—
General ,,	430	—	—	—	—	2	1,055	—	—
Queen Charlotte's Lying-in	892	857		46	31	4	7,490	—	—
Chelsea for Women	464	180	209	No acc. kept	35	12	12,242	—	—
Hospital for ,,	697	295	267	57	55	18	31,041	—	—
Grosvenor for Women	107	68	41	9	7	3	9,084	—	17
New ,, ,,	213	78	123	—	—	3	13,600	—	—
Royal for Children and Women	509	387		32	43	47	27,154	—	—
Samaritan Free for Women	504	70	407	24	25	16	15,112	—	—
Cancer	630	525		12	56	105	6,630	—	—
London Fever	682	—	602	—	60	20	—	—	—
Gordon for Fistula	157	10	135	2	8	2	2,642	—	—
St. Mark's	310	23	269	32	13	5	—	—	—
National for Diseases of the Heart	—	—	—	—	—	—	—	—	—
Female Lock	731	624	—	264	97	2	2,463	—	—
Male Lock	225	—	—	—	18	1	19,685	—	—
Hospital for Epilepsy	157	—	—	6	18	3	8,885	—	—
National for the Paralyse	847	248	348	136	100	36	25,167	—	—
West-End ,,	—	—	—	—	—	—	—	—	—
Central London Ophthalmic	180	—	—	—	—	—	17,797	—	—
Royal ,, ,,	1,927	—	—	5	59	—	128,235	1,560	6
Royal S. ,, ,,	—	—	—	—	—	—	—	—	—
Royal Westminster Ophthalmic	414	283	131	4	14	1	52,338	—	—
Western ,,	45	—	—	—	—	—	6,926	—	—
City Orthopædic	160	—	100	—	60	1	9,000	—	—
National ,,	136	101		—	35	—	2,485	—	—
Royal ,, ,,	153	44	60	—	40	—	7,451	—	—
Hospital for Diseases of the Skin	—	—	—	—	—	—	—	—	—
Central London Throat and Ear	227	59	144	4	14	6	33,233	—	—
Royal Ear	113	—	—	—	5	—	8,466	—	—
Hospital for Diseases of the Throat	—	—	—	—	—	—	—	—	—
London Homœopathic	791	211	430	105	70	31	22,230	—	—
London Temperance	733	226	390	30	62	45	3,282	201	56
The Dental	—	—	—	—	—	—	43,764	—	—
National Dental	—	—	—	—	—	—	—	—	—

metropolis is but little appreciated, chiefly because building is in the nature of things an industry that is not carried on in one great centre, but is distributed over the entire metropolitan area. This wide distribution does not by any means diminish the risks that must be incurred; on the contrary, it has a great tendency to augment them, since the inevitable consequence of thus splitting a vast aggregate operation into a number of small operations is that a certain amount of makeshift in the plant used is inseparable from the latter conditions. In the building of a vast pile like the Law Courts or the Houses of Parliament, the very scaffolding is erected with the solidity of a wooden bridge, and cranes are fixed in position to do practically all the work of raising and lowering the materials used in the structure. But in the building of a suburban villa it is not so. The scaffolding is put together roughly, while mortar, bricks, and anything else that can be divided into sufficiently small parcels is carried up ladders and in hods. It is thus, in spite of the gradual introduction of improved appliances, that the bulk of the building in London is still carried out, and a trade, terribly hazardous at the best, comes to be fraught with from great heights or blows of great violence is indeed their most distinctive feature, and in this particular they may well be compared with that very formidable class of accidents to which we alluded in the commencement of this review as arising in the experience of the riverside population.

RAILWAY ACCIDENTS.

Of the volume and complexity of the railway traffic between London and the provinces or foreign parts we shall make no attempt to speak. Every reader will be already furnished with more vivid and adequate impressions derived from his own recollections of a great terminus on a busy day than any words or figures could convey. Of the perils, too, which are habitually incurred by railway workmen it is the less necessary to speak, because everybody understands them in a greater or less degree. But the impressions which the ordinary passenger derives from his casual observation of what takes place at the starting or arrival of a passenger train are very inadequate as a measure of the risks incurred by railway men, if for no other reason than that they leave wholly out of view the most risky aspects of the work. It may

TABLE No. III.—COTTAGE HOSPITALS AND CONVALESCENT HOMES.

Name of hospital.	In-patients.	Relieved.	Cured.	Con-valescent homes.	Remaining under treatment.	Died.	Out patients' visits.	Accidents and emergency.	In-fluenza.
Metropolitan Convalescent	2,862	1,321	2,190	—	—	2	—	—	—
Bexhill on-Sea Convalescent	1,475	506	893	—	31	8	—	—	—
All Saints ,,	3 263	1,448	1,688	—	136	3	—	—	—
Mrs. Gladstone's ,,	1,047	—	—	—	—	1	None	—	—
Hanwell ,,	—	—	—	—	—	—	—	—	—
Herbert ,,	347	156	117	—	37	—	—	—	—
King's College ,,	477	231	224	—	15	2	—	—	—
Mrs. Kitto's ,,	342	—	—	—	—	—	—	—	—
,, Marsham's ,,	—	—	—	—	—	—	—	—	—
Mary Wardell ,,	248	—	—	—	—	—	—	—	—
Morley ,,	—	—	—	—	—	—	—	—	—
Princess Frederica's ,,	171	—	—	—	—	—	—	—	—
Ramsgate Children's ,,	—	—	—	—	—	—	—	—	—
St. Andrew's (Clewer) Convalescent	795	—	—	—	65	12	—	—	—
Do. (Folkestone) ,,	1,676	558	1,116	—	50	5	None	—	—
St. Barnabas ,,	—	—	—	—	—	—	—	—	—
St. Leonards-on-Sea ,,	807	—	—	—	—	—	—	—	—
St. Mary Magdalene ,,	24	26	—	—	—	2	—	—	—
St. Michael's ,,	275	—	—	—	27	—	—	—	—
Seaside ,,	812	80	732	—	—	—	—	—	—
Beckenham Cottage	93	19	60	—	8	6	—	13	1
Blackheath and Charlton Cottage	161	42	88	5	14	7	3,598	16	—
Burstead ,,	—	—	—	—	—	—	—	—	—
Chislehurst ,,	76	63	—	—	3	4	—	—	—
Eltham ,,	92	14	65	—	8	5	—	8	—
Enfield ,,	—	—	—	—	—	—	—	—	—
Epsom and Ewell ,,	79	—	—	—	—	—	—	—	—
Reigate and Redhill ,,	210	36	159	24	9	3	None	37	—
Shedfield ,,	48	5	36	—	5	—	733	—	—
Sidcup ,,	88	14	57	7	6	4	—	20	—
Wimbledon ,,	113	77	24	—	9	3	—	—	—
Establishment for Gentlewomen	109	—	—	—	None	2	—	4	—
Hampstead Home	146	30	103	—	9	5	—	2	13
National Sanatorium	240	195	—	2	40	4	—	—	—
Royal Sea-bathing Infirmary	654	239	287	—	144	4	450	—	90
Invalid Asylum	213	163	29	15	26	2	—	—	—
Firs Home	60	24	—	—	17	19	—	—	—
St. Catherine's Home	47	21	—	—	10	8	—	—	—

the most imminent peril to all engaged in it. Add to this consideration the further one that building and rebuilding go on here upon a scale unequalled probably anywhere else in the world, and the importance of building accidents in the experience of the metropolitan hospitals will become very intelligible. The statistics of rebuilding operations are probably not to be had, and it would be idle to supply their place with guesses. But it appeared, as one result of the census of 1881, that the *annual increment* in the number of inhabited houses in London had in the preceding decade been not less than the entire number of houses in the town of Deal. What the census now in progress may disclose concerning this interesting matter it is yet too early to ascertain, but we surmise that the builders' activity will be found to have been no less in the later period than in the earlier, and that during the year 1890, which furnishes the precise materials of our present review, the mere growth of London has been equal to the building of a good-sized town. But it is not only in respect of the frequency and great number of building accidents that they merit especial notice here. They are not less remarkable for their severity. The commonness of severe fractures as the result of falls be true that the failure of a guard to apply his brake, or the delay of an engine driver to shut off steam, may wreck a train. It may be true also that the occasional occurrence of such accidents affords proof enough, if proof were needed, that they are not mere possibilities, but actual, and even considerable, sources of danger. But at worst such accidents are very rare. To get the hand crushed between buffers or the body struck by a slowly but heavily moving waggon, to fall from the footboard of a van that is being shunted, or to get the fingers pinched by a closing door, these are the every-day mishaps of a great railway station. Many of them are not serious if they receive prompt attention; but even for these the near neighbourhood of a hospital is a matter of importance, since it prevents their growing to seriousness; whereas for such as assume more formidable proportions, of which it will be easily believed that there are not a few, recourse, and prompt recourse, to medical aid is a matter literally of vital consequence. Here, again, it is impossible to give figures which will exhibit the scale of the hospital work of institutions in London; but it is not wholly irrelevant to quote from the return of railway accidents recently issued

from the Board of Trade that there were reported to the Board during the year 1890 railway accidents which resulted in the death of 1076 persons and the injury of 4721 others. These figures include, of course, accidents which happened in all parts of the United Kingdom, and they cannot therefore be taken as affording any guide to the railway accidents dealt with by the hospitals of the metropolis. But it has been already pointed out that not only is London the greatest railway centre in the world, but also that a certain proportion of the railway accidents which occur in the provinces are brought here for treatment because of the facilities of transport in this direction which a main line of railway affords. The Royal Free Hospital, situated in the Gray's-inn-road, lies near to three great railway stations, and a list of the in-patients on a particular day, which has been furnished for our use, shows that out of sixty-one male patients occupying beds something like twenty were railway *employés*.

TABLE No. IV.—DISPENSARIES.

Name of dispensary.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergency.	Influenza.
Battersea Provident	—	—	—	—	—	—	—	—	—
Brixton &c.	4,880	—	—	—	—	—	—	—	—
Brompton Provident	—	—	—	—	—	34	9,449	—	—
Camberwell „	—	—	—	—	—	—	38,749	—	—
Camden-town „	—	—	—	—	—	—	5,414	—	—
Chelsea	—	—	—	—	—	—	—	—	—
Child's-hill Provident	—	—	—	—	—	—	—	—	—
City	—	—	—	—	—	—	—	—	—
City of London and East London	—	—	—	—	—	—	—	—	—
Clapham General	—	—	—	—	—	—	3,699	—	—
Deptford Provident	—	—	—	—	—	—	—	—	—
Eastern	—	—	—	—	—	—	—	—	—
Farringdon	—	—	—	—	—	—	—	—	—
Finsbury	—	—	—	—	—	—	35 351	—	—
Forest-hill	—	—	—	—	—	—	20,885	—	—
General	—	—	—	—	—	—	—	1,184	—
Gipsy-hill Provident	—	—	—	—	—	—	—	—	—
Hackney „	—	—	—	—	—	—	—	—	—
Hampstead „	—	—	—	—	—	—	—	—	—
Holloway and N. Islington	—	—	—	—	—	—	—	—	—
Islington	—	—	—	—	—	—	29,626	—	160
Kensal-town Provident	—	—	—	—	—	—	61,743	16	2,196
Kensington	—	—	—	—	—	—	5,661	—	—
Kilburn &c.	—	—	—	—	—	—	—	—	—
Kilburn Provident	—	—	—	—	—	—	—	—	—
London	—	—	—	—	—	—	—	—	—
London Medical Mission	—	—	—	20	200	82	15,664	—	650
Margaret-street Infirmary for Consumption	—	—	—	—	—	—	17,019	—	—
Metropolitan	—	—	—	—	—	—	—	—	—
Notting-hill Provident	—	—	—	—	—	—	—	—	—
Paddington	—	—	—	—	—	35	7,539	—	—
Pimlico Provident	—	—	—	—	—	—	—	—	—
Portland-town (Free)	—	—	—	—	—	—	4,240	—	—
Portobello-road (Provident)	—	—	—	—	—	—	1,750	—	11
Public	—	—	—	—	—	—	17,820	—	—
Queen Adelaide's	—	4,189	—	—	500	56	4,875	—	50
Royal General	—	—	—	—	—	—	—	—	—
Royal Maternity Charity	—	—	—	—	—	—	—	—	—
Royal Pimlico Provident	—	—	—	—	—	—	2,852	—	—
Royal South London	—	911	3,212	—	720	210	5,053	—	—
SS. George's and James's	—	—	—	—	—	—	—	—	—
St. George's, Hanover-square	—	—	—	—	—	—	1,754	15	101
St. John's-wood Provident	—	4,050	—	—	90	—	6,500	—	400
St. Marylebone	—	—	—	—	—	—	18,940	205	500
St. Pancras and Northern	—	—	—	—	—	—	—	—	—
SS. Paul and Barnabas Provident	—	—	—	—	—	—	2,443	60	30
South Lambeth	—	—	—	—	—	—	2,820	—	—
South London Medical Aid	—	—	—	—	—	—	12,612	—	—
Stamford-hill &c.	—	—	—	—	—	86	10,301	2,076	587
Tower Hamlets	—	—	—	—	—	—	1,033	650	—
Wandsworth-common	—	—	—	—	—	—	1,508	—	—
Westbourne Provident	—	—	—	—	—	—	13,081	—	—
West Dulwich „	—	—	—	—	—	—	—	—	—
Western	—	—	—	—	—	—	295	—	—
Western General	—	—	—	—	—	—	24,935	803	—
West Ham	—	—	—	—	—	—	50,318	10,801	—
Westminster General	—	—	—	—	—	—	—	—	—

STREET TRAFFIC.

The one remaining industry upon which we propose to touch is not only the largest of them all, but also that which is brought most prominently under the eyes of the public. The transport of goods and passengers daily in the streets of London occupies an enormous number of persons, and is also attended with its own risks, which everybody is able in a greater or less degree to appreciate. Probably few of our readers are in the position of having never witnessed a street accident; and when it is borne in mind how vastly the traffic of London in a single day exceeds what the most observant of onlookers can personally see in the course of years, or even of a lifetime, it will be felt that the casualties befalling carmen, cabmen, and the drivers of other vehicles must be beyond all calculation. With such casualties the hospitals of the metropolis deal in the only way in which it is possible for them to be dealt with. In this respect it is not practicable to make a selection or quote any notable instance. Every hospital has its tale of such experiences, and almost every hospital in the metropolis has somewhere in its vicinity a dangerous piece of roadway where accidents are frequent. In this branch of hospital work the general public have a common interest with working men, for, although the driver is more frequently than anybody else a victim to such mishaps, there is no class or section of the community which is free from liability to them. It is a striking evidence of the thoroughness with which hospital work in London is done that within the past two or three years a special ambulance service has been organised for securing the ready conveyance of cases of street accidents to the hospitals, where they may be treated. It has been found that many disadvantages attend upon the employment of cabs for this purpose. For one thing, the cab is ill adapted to the work. In a case of severe injury it is difficult to enter, and not easy to ride in. To obviate these inconveniences a special form of stretcher, carried on wheels, has been devised, and placed at upwards of fifty stations attached to hospitals, fire brigade stations, cab ranks and other easily accessible situations in the London streets. The work of organising

this conveyance service is still going on, and it may be hoped that when it is complete not only will a street accident of a serious character always be dealt with promptly and effectively, as now, at an adjacent hospital, but also always conveyed thither with a minimum of pain and risk to the sufferer.

DISEASES INCIDENTAL TO INDUSTRIAL OCCUPATIONS.

It must not be assumed that the injury to health which arises in the course of industrial pursuits is confined to what are commonly called casualties. On the contrary, there is a vast amount of disease contracted in this way, some of it as the necessary consequence of dealing with unwholesome subject matters and more as the result of insanitary conditions under which actually, if not necessarily, the work is carried on. Of the latter class of diseases we shall not speak here. The appalling facts brought to light respecting sweating in the tailoring and some other trades by the evidence given before the Royal Commission on that subject, and by the inquiries of THE LANCET Sanitary Commissioners, have sufficiently awakened the public mind and startled the public conscience in reference to this matter. Happily that has become a text upon which men now preach reform, and, although the remedy comes slowly, it has at least begun to work. But in the meantime, while reform delays, the poor tailors starve, and stifle, and sicken and die. It is a pitiful lot, but it would be even worse if the poor creatures had not, when overstrained nature fails, the resource of the hospital. But that aside, there are many trades which no conditions can make innocuous. This is not, indeed, in any marked degree the case with the trades which are carried on in London. That statement is, however, consistent with a very serious amount of consequential injury to health. The amount of debility and dyspepsia which arises from mere confinement and the want of exercise is a thing incapable of being tabulated, but which leaves a deep impression on the mind of the hospital physician. So with rheumatism, to which certain classes of the working population are peculiarly liable. Furthermore, there are some maladies which occur with so much regularity in certain trades that one may almost write them down as incidents and not mere accidents of a hazardous occupation. This is the case with certain well-known forms of poisoning—lead poisoning for example. The care necessary, even if sufficient, to ensure a worker in lead and its products against the mischievous effects of lead salts makes too great a demand upon the workers' presence of mind to be practicable, and in some works so clearly is this fact recognised that operatives are only received for short periods of service. In localities, therefore, where lead in some one or other of its several forms constitutes the staple of an industry, lead poisoning is a constantly occurring disorder. Another example of the same kind of thing presents the work of the hospitals in a slightly different light. It is well known that woolsorters are liable to contract from their manipulation of hides a peculiarly virulent carbuncle, called from this circumstance "woolsorter's disease." The enormous hide and leather trade of Bermondsey, to which allusion has been already made, involves of course a serious risk of this terrible disorder; and in the course of our inquiries we made a point of asking at Guy's Hospital—which, being on the spot, would naturally collect the experience of the locality in which such a disease might be expected to manifest itself—whether it was found to be a formidable scourge. The very satisfactory answer was that the disease is comparatively rare; and the explanation of this happy condition, which was more satisfactory still, was that the exposed population has been warned by printed notices placed in the workshops and warehouses where they are employed to repair to the hospital for advice upon the earliest appearance of the first and slightest symptoms, which, apart from such warning, they would be apt to overlook, and treat as a matter of no account. Taken so, the disorder is easily treated, and the consequence of this precautionary measure and of the accessibility of the hospital is that the working population which manipulates the hides is preserved in a state of practically complete immunity from a most terrible disease, notwithstanding that the external conditions of its development are constantly present in their daily surroundings.

So much must suffice from the point of view of an onlooker at the work of the hospitals of London. We are able on this occasion to present to our readers another aspect of the subject, for a few weeks ago the Editors of THE LANCET caused it to be known that they would be glad to receive for the purposes of this Supplement letters of acknowledgment from patients who, having been treated in some one or other of the hospitals of London, had spontaneously expressed their gratitude, or were disposed to express it on receiving a hint to that effect. Several of our contemporaries took up the suggestion, and the result has been a sheaf of correspondence much too voluminous for publication in detail. The broad result may, however, be easily summarised. Without exception, the patients speak in the most appreciative terms of the skill, kindness, and delicate attentions which they have received. Nor are the acknowledgments confined to those who have been personally benefited. Surviving friends of patients who have died under treatment are not less ready to confess the care bestowed in such cases with only incomplete success, but which eased and solaced the last moments of the sufferers, and of which the recollection is treasured by those whom they have left behind. From the materials so placed at our disposal we have made a selection of three letters, and have chosen such as have a special bearing upon the particular subject of this Supplement.

DEAR SIR,—My eyes are going wrong, and I am too utterly poor to pay for medical attendance. Will the doctor at your hospital give me advice gratis? I am a journalist, and earn only a bear subsistance, but I had better lose my life than lose my sight. You may imagine what it means to me. If the doctor will see me, please say day and time, except Saturday. Truly yours,

April 22nd, 1891. ——.

(The relief asked was afforded.)

DEAR SIR,—I beg to express my sincere gratitude to the —— Hospital for the attention and kindness I received at the above institution, where I consider Mr. ——, surgeon, Mr. ——, and Mr. ——, house-surgeons, saved my left arm from being amputated, and I am now doing duty as lamplighter. Yours respectfully,

To Dr. —— ——.

DEAR SIR,—Would you kindly fill in this Sick Report as the Corps will not pay me till then, and as soon as I get the money, wich is 18s., I will put 2s. to it and make a pound for the hospital as a little token for the great kindness shown me whilst in pain and distress. I ham very sorry to say I ham laid up with the same again, but I have not the same attention shown me at home as I had under you in —— Hospital. . . . Hoping you will anser this as soon as possible, believe me to remain, Your humble servant,

Oct. 7th, 1890. ——.

DISTRIBUTION OF THE FUND.

During the past year a great deal of criticism has been levelled at certain of the hospitals of the metropolis, and it may well be that the course of this discussion has had an effect not altogether favourable upon the minds of some of those who are accustomed to contribute to the hospital collection. It is much to be hoped that unfortunate impressions of this kind will not be allowed to restrain the charities of the London congregations. The results of the inquiries instituted by the House of Lords' Committee and the Local Government Board are not yet available; and with reference to the latter, it may be well to point out that, important as that inquiry is, it has no direct bearing on our present subject, since the hospital in question is maintained by the Metropolitan Asylums Board, and does not receive any aid from the Hospital Sunday Fund. In regard to hospitals participating in that fund, we may remind our readers, as we have done on previous occasions, that the distribution of the Hospital Sunday Fund is effected upon a method of careful scrutiny into the merits of the various claimants upon its bounty such as no private donor would be expected or is even able to undertake. If any person, then, is troubled with doubts as to the disposition of the money which he may be able to afford for this most charitable purpose, he cannot better resolve them than by entrusting his contribution to the hands of the Mansion House Committee, whose duty and practice it is to inquire into the efficiency of the administration of those institutions to the support of which their funds are dedicated.

Summary of Hospital Work in London during 1890.

Beds daily occupied	6,143
In-patients received	78,033
Out-patients' visits	1,158,026
Sum expended	£606,258

The Editors of THE LANCET desire to acknowledge the kind services rendered by the secretaries, registrars, and

other officers of metropolitan hospitals who have assisted by furnishing returns of the work of their various institutions and affording opportunities of interview to THE LANCET Commissioner, thus providing the materials for the tabulated statements appearing in the present Supplement.

THE YEAR'S RECORD OF HOSPITAL WORK

The collected statistical results of the work during the year 1890 of the hospitals and medical charities of the metropolis are given in the tables Nos. 1 to 4, which appear in the present Supplement, and in like manner the finance of the year is exhibited by three lists, in which are given the names of the various hospitals, together with a succinct summary of their published accounts. In these lists the dispensaries have not been included, they being in a very preponderating degree self-supporting, and recipients to only a comparatively small extent of public charity, and in particular of the benefits of the Hospital Sunday Fund. Of the facts so disclosed it is not necessary to speak at any length, for the sufficient reason that they carry their significance in their face. But a few words by way of appreciation of the aggregate results shown may not be out of place. Of the vast total of merciful work represented by a daily average of upwards of 6000 occupied beds no one can have any difficulty in forming a strong, even if a not very clear or adequate impression. Similarly, the enormous total of 78,000 in-patients received and treated in the wards of the various hospitals gives another impressive aspect of the same overwhelming fact. But perhaps nothing more strikingly indicates the thoroughness of hospital work than the great numbers of patients sent to convalescent homes. The statistics of the convalescent homes show that not fewer than 15,000 patients participated in their benefits during the year, and the records of the General and Special Hospitals show that about one-half of this number proceeded thither from these larger institutions. Of the very large proportion of cases discharged either cured or relieved, it is sufficient to say, "*Finis coronat opus.*" To this end mainly the work of the hospital staff and liberality of their supporters are devoted. The proportion varies, of course, with the varying circumstances of different institutions, but may be taken to be about 90 per cent. in a typical instance. Yet it is not in these cases only that the benefit of hospital work is to be seen. Of the residue who die in hospital, it may still be affirmed that they have participated in no small measure in the advantages which hospitals secure. When the hand of death has seized its victim, it is no small alleviation of the mortal suffering to be surrounded by the comparatively placid atmosphere of a well-regulated hospital ward, and to have at command all that skill and trained tenderness can supply by way of anodyne.

It will perhaps be observed by some of our readers that we have this year omitted the statistics that have been given on some former occasions, of the numbers of medical men and students, and also of hospital nurses, engaged in the administration of this work. The introduction of the summarised accounts has expanded our tabular matter on this occasion to such proportions that some sacrifice has been indispensable, and we have, making a virtue of necessity, acted on the self-denying plan of withdrawing from view the record of professional work. The merit of such an act of abnegation is perhaps minimised by the circumstance that not even the most cursory view of hospital work is possible which does not exhibit in the foreground the part taken at enormous cost of time and energy freely bestowed by medical men, and zealously expended by their coadjutors, to whom it furnishes a means of livelihood, or, as the case may be, a training school. In such matters the question of reward is really little better than an impertinence. Paid or unpaid, the only service that is serviceable to the sick is that which is inspired by pity, and sustained by sympathetic sorrow for their sufferings.

It will also be of interest to draw attention to the information now collected concerning the work of the institutions under review which resulted from the influenza epidemic of last year. In prosecuting inquiries with regard to this matter we have been met by the difficulty that in many institutions no separate record has been kept of the effects of this epidemic, and consequently the statement which we have been able to compile is exceedingly incomplete. So much will appear upon a mere glance at the tabulated figures. Nor is the reason of this difficult to divine. Last year the disorder assumed a much less serious character than it has lately developed, so much so that it was observed very principally as an out-patients' trouble. The statistics are therefore naturally much less exact than in the case of disorders which receive in-door treatment. But, this notwithstanding, the cases total up to very nearly 10,000, and afford a striking illustration of the way in which hospital treatment is available to meet an emergency. At the present moment this fact, slight as it is, ought to commend itself to the attention of many of those whom we are to-day seeking especially to address, for in its unwelcome return the influenza appears to have selected its victims specially from the more affluent classes of society—a circumstance which should quicken their appreciation of the work which was last year done for their poorer neighbours by the institutions now commended to their generosity. This quality should be manifested in a high degree this year if it be true that "a fellow feeling makes us wondrous kind."

Interested as we feel in the continued success of the Metropolitan Hospital Sunday Fund, we must allude to the devoted and untiring work of the Right Hon. Joseph Savory, the Lord Mayor, the President of the Fund; Sir Sydney H. Waterlow, Bart., the Vice-President; the honorary secretaries, Sir Edmund Hay Currie and Mr. Richard B. Martin; and the members of the Council generally. Nor must we forget the indefatigable secretary, Mr. H. N. Custance, of whose services, we hear, a further substantial recognition will be given. We may safely thank in advance the ministers of religion who on Sunday, June 7th, will bring this great charitable work to the attention of their respective congregations.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

Dr. — RECEIPTS *for the year ending 31st October, 1890.*

1890.	£ s. d.	£ s. d.
To balance at Bank of England, 1st Nov., 1889	1,731 18 7	
,, Balance in hands of Secretary	23 17 8	
		1,755 16 3
,, Collections made at Sundry Places of Worship	38,767 6 0	
,, Collections at Schools	55 16 1	
,, Donations, including £283 18s. 0d. for Surgical Appliances	2,384 5 4	
,, Legacy—late Thomas Crouch, Esq.	1,003 14 0	
,, Interest on Investment from 16th June to 1st August	103 15 4	
		42,314 16 9
		£44,570 13 0

Cr. — PAYMENTS *for the year ending 31st October, 1890.*

1890.	£ s. d.	£ s. d.
By Awards to 104 Hospitals	35,442 13 9	
,, Awards to 7 Institutions	984 7 6	
,, Awards to 55 Dispensaries	2,414 15 10	
,, Surgical Appliances	2,126 11 5	
		40,968 8 6
,, Rent	163 15 0	
,, Coal and Gas	11 17 9	
,, Printing and Stationery	275 13 3	
,, Stamps and Postage	126 13 3	
,, Advertisements	259 16 11	
,, Salaries and Wages	690 12 11	
,, Sundries	15 13 7	
		1,544 2 8
,, Balance at Bank of England, including £1,253 available for Surgical Appliances	2,051 4 10	
,, Balance in hands of Secretary	6 17 0	
		2,058 1 10
		£44,570 13 0

Audited and found correct, this 21st day of November, 1890.

(Signed) HART BROTHERS, TIBBETTS, & Co., *Chartered Accountants*, 14, Moorgate-street.